

ESTABLISHED 1880
Representative of
The Hardware, Stove,
Sheet Metal, and Warm
Air Heating and Venti-
lating Interests
PUBLISHED EVERY SATURDAY

AMERICAN ARTISAN and Hardware Record

Address all communications and
remittances to

DANIEL STERN
Publisher and Proprietor
620 South Michigan Avenue
Chicago Illinois

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS (Invariably in Advance) ONE YEAR POSTAGE PAID \$2.00
FOREIGN COUNTRIES ONE YEAR POSTAGE PAID \$4.00 CANADA ONE YEAR POSTAGE PAID \$3.00

Entered as Second-Class Matter June 25 1885 at the Post Office at Chicago Illinois under Act of March 3rd 1879

VOL. 77. No. 14.

CHICAGO, APRIL 5, 1919.

\$2.00 Per Year.

THE DAYS OF THE freebooter in business are definitely past. Conscience has taken the place of chicanery, as coffee is now dispensed in lieu of chicory to those who ask for coffee. **Must Pay Our Debts.** People pay their debts today not because collection is enforced by sheriffs and bailiffs but because they have developed the sense of honesty. The best evidence of this is in the fact that imprisonment for debt is no longer a legal and social necessity and has practically disappeared from the statute books as a law. As a nation, then, we have evolved the habit of paying our debts. There is no need of impassioned appeal to Americans to be ready to meet the obligation of the Victory Liberty Loan, which falls due April 21, 1919. It is clearly a liability upon the resources, in proportion to individual income, of all our citizens. Deliberately, and with the high motive of sacrificing dollars in preference to lives, we spent billions in equipment and preparation to speed the end of the war. We won—with a maximum of dollars and a minimum of lives. The dollars must be paid promptly. Our country needs the cash at once. We are not asked to give the money outright. America is the richest nation in the world. Future resources will take care in gradual liquidation of all present obligations. We are merely asked to lend the money to the Government now in order that cash may be available for prompt settlement of obligations. Words would be wasted in elaborating the fact that there is no stronger security in the world to guarantee a loan than the Republic of the United States of America. Therefore, let every merchant and mechanic, every banker and worker, shape his finances so that he may take his full share of the Victory Liberty Loan.

courage and should believe in the immediate resumption of business prosperity in the United States. There is no place in the American scheme of things for the pessimist or the doubter. Our country today leads the world in prosperity. It can lose its leadership only by its own faint-heartedness. We especially deprecate any concerted holding back of construction and business resumption, for the purpose of forcing a reduction in wages or cost of material.

"Both as a means of stimulating the resumption of industry and removing the shadow of unemployment from the working people and also serving the broader and more permanent purpose of supplementing the railroad lines and to develop the inland and farm commerce of the country, the work of constructing good roads should be promptly carried on by cooperation of the Federal and State Governors and local communities."

A COMPARISON WITH reports from other unrelated sources establishes the accuracy of the estimate of business conditions published by the **Prospect Is Encouraging.** National City Bank of New York in its current bulletin. The statement is trustworthy that the general business situation is more hopeful than it has been since the armistice was signed. The winter season has been passed without the amount of unemployment at one time feared, and outdoors work now opening up will take care of an army of men. The farms are short of labor all over the country and building operations, although held in check by high costs, are showing more activity than for the year past.

The meeting of steel producers held in Washington at the invitation of Secretary of Commerce Redfield resulted in an agreement for a further reduction of prices, the aggregate since the armistice being now from \$12 to \$15 per ton. The producers are emphatic in saying that this is all the industry can stand without a reduction of wages, which it is desired to avoid until living costs are lower. The total wage increases in the steel industry upon finished material, from the beginning of the war to its close, are calculated at 134 per cent and of the total cost of the product 85 per cent is calculated to be wages.

Reports from the country uniformly tell of good trade. In the dry goods trade it is said that goods bought at the top prices of last year have been worked off by both jobbers and retailers, and that the situation is in good shape. The cotton goods market has been stabilized by buying to keep up stocks, and al-

AT THE RECENT Trans-Mississippi Readjustment Congress, held in Omaha, Nebraska, a sensible attitude was taken with reference to the **Pessimists** resumption of business. The delegates **Not Wanted.** declared that they were not in favor of a pause in the industrial process to await some future readjustment of wages and prices of staples. So far as public improvements are concerned, they should be resumed at once. It is better that the public should absorb the increased cost, if any should hereafter appear, than that general unemployment and consequent disaster and social disorder should follow.

"We believe that the promoters of private construction and business enlargement should take heart of

though buyers are not laying in large stocks, confidence is restored for the present. Prices have recovered a little from the low points touched in January. The mills have booked considerable business, and at some of the centers have lengthened their running schedules. The situation in woolen goods is about the same as in cotton. The price reductions made by the leading producers appear to satisfy the trade, which is taking them freely for next fall's retail distribution. It is generally recognized that prices are as low as they can be without wage reductions, and these are not expected during the present season.

The general trade and labor situation justifies the view that there will be no headlong decline back to the wage and price levels of before the war, but that the readjustment will take place gradually, following upon lower prices for foodstuffs. We cannot tell when foodstuffs will fall, but it is now evident that the facts did not justify the predictions which were common in January that their prices would come down rapidly if government restrictions were withdrawn. They were withdrawn from hogs and the price went up \$2.00 per hundred weight, with a similar rise in the price of corn. May corn has sold at Chicago during the past week above \$1.50 per bushel, the highest prices of the year. The movement of provisions to Europe has been very heavy, but not nearly heavy enough to meet the European demand. Thirty German ships are on the way over here for food, and they can take only a small installment of what is wanted. All Europe is desperately in need of food.

It is not so certain that any great reduction in food prices will come even with the next harvest. America's crop of wheat promises to be the largest on record, but there is a great void to be filled in Europe, and America is the dependence.

FROM TIME to time, tools need resharpening. No metal has yet been devised by ingenuity of man which

will hold a cutting edge under constant

What Real use. Words are the tools with which **Service Is.** we work out thoughts and shape them into definite, intellectual forms. Words lose their edge and need to be resharpened. The word "service" has become dulled from much use. In many quarters, it is no longer keen enough to fashion precise ideas of the complex which it is intended to convey. Indeed, to some merchants it means only politeness without the accompaniment of quality and courtesy without a basis of substantial value.

Business etiquette is not necessarily service. Friendly greetings are not a sufficient substitute for inferior goods. Fragile promises, as easily broken as the crisp crust of the pies that mother used to make, are a poor method of adjusting complaints. Nameless and unadvertised hardware unsponsored by a reliable manufacturer can not, by any stretch of the imagination, become part of service in the genuine sense of the term.

Service is more than politeness, more than affable salesmanship, more than shining show-cases, and more than prompt delivery. It is all these plus reasonable values for money received, trustworthy commodities, honest dealings, consideration of the cus-

tomer's actual needs with a view to avoid overloading him with things which he does not require and the maintenance of an adequate stock of standardized goods wherewith to supply the demand of the trade, plus a policy which deems no sale finished until the customer is fully satisfied.

MANY ECONOMISTS DISAGREE with the money theory of Irving Fisher, Professor of Political Economy,

Permanent High Level of Prices. Yale University. Few, however, question the soundness of his analysis of the trend of business. Therefore, the widest publicity should be given to his statement that we are on a *permanently* higher price level, and the sooner the business men of the country take this view and adjust themselves to it the sooner will they save themselves and the Nation from the misfortune which will come if we persist in our present false hope.

"Business men should face the facts," says Professor Fisher. "To talk reverently of 1913-14 prices is to speak a dead language today. The buyers of the country, since the armistice, have made an unexampled attack upon prices through their waiting attitude, and yet price recessions have been insignificant. The reason is that we are on a new high-price level, which will be found a stubborn reality. Business men are going to find out that the clever man is not the man who waits, but the one who finds out the new price facts and acts accordingly."

AN ACTOR IS emotional. From much feigning of the passions, he becomes himself a victim of their impulses. The line of demarcation between the real and the mimic is wiped out in the overlapping of nature and art.

Think, Act and Talk Hardware. Cases are not wanting in which the actor becomes the character which he performs. It is said of Edwin Booth that so completely did he become absorbed in the rôle which he played that in duelling scenes he actually tried to kill his opponent. It became necessary to have trained fencers enact the part of his antagonist in such passages. From much portrayal of love upon the boards, the letters of actors are aflame with more than tropic eloquence. In other words, they merge themselves into their profession.

It is a far cry from Shakespeare and Belasco to Disston saws and Stanley levels, yet the intervening spaces are not wholly devoid of analogies by means of which merchandising lessons may be driven home. The truly successful hardware dealer is the Edwin Booth of his business. He thinks hardware. He dreams hardware. He acts hardware. He absorbs every detail of salesmanship by which to lift hardware out of the ruts of the commonplace. His mind is ever on the alert and his imagination always active in search of new methods of retailing, new devices for drawing customers into his store, better plans for window displays, more effective advertising, and greater satisfaction to the customers of his store. Just as the modern actor's ambition is to see his name gleaming among the white lights of Broadway, so the hardware dealer of the higher type strives with might and main to institutionalize his name so that it may

become synonymous with perfect hardware distributed with perfect service.

RANDOM NOTES AND SKETCHES.

By Sidney Arnold.

A solemn face is well enough in the dismal business of selling coffins. It is out of place, however, in retailing hardware. With the exception of a few cross-grained, morose individuals, the customers of the hardware dealer gladly respond to the welcome of a smiling countenance. They buy more freely from the cheerful salesman than from the clerk whose features seldom relax into pleasant lines of greeting. The smile is a business asset and a personal endowment—equally valuable in producing profit and happiness.

* * *

George Harms of F. Meyer and Brother Company, Peoria, Illinois, speaks of some odd twists which are given to the English language in many letters which reach government departments from foreigners desiring to get in touch with American business concerns. Often officers are unable to get at the meaning of some of the unusual phrasings used.

Recently there came to the Department of Commerce a letter asking that the writer be given the names and addresses of American manufacturers of male water sheep. Maybe that wasn't a poser! For a week no one in the department, rack his brains as he might, could imagine what this man wanted. Many employees were called in and it remained for a woman to shed light on the situation. The woman read the letter and then said:

"Why, I think he means hydraulic rams."

And that was what the foreigner was inquiring about.

* * *

My friend Al Friedley of the Friedley-Voshardt Company, Chicago, Illinois, reports the following dialogue between two young men:

First Young Man—"Most girls, I have found, don't seem to appreciate real music."

Second Young Man—"Why do you say that?"

First Young Man—"Well, you may pick beautiful strains on a mandolin for an hour and she won't even look out of the window, but one honk of a horn and—out she comes!"

* * *

Herbert W. Symonds of the Symonds Register Company, St. Louis, Missouri, is recovering from an attack of pneumonia which lasted for two weeks. He writes me that during his illness my Random Notes and Sketches helped to cheer him.

* * *

All jokes are as old as the hills, no matter how modern the version in which they pass current, says my friend C. E. Hodges of the Utica Heater Company, Utica, New York. He tells about a statue of King Da-udu, who lived and reigned about 4500 B. C., which was discovered by Dr. Edward J. Banks, an American archaeologist, among the ruins of the buried city of Adab, in Babylonia. The statue, cleaned and restored, is now in the museum at Constantinople

It contains an ancient joke that was found written on one of the walls of Adab.

One morning a hodja's neighbors complained of a noise that had disturbed them the previous night.

"There was no noise in my house last night," asserted the hodja.

"Don't tell us that," the neighbors protested. "There was such a disturbance that we could not sleep."

The hodja slowly stroked his long beard, and then recollected that some time during the night his wife had kicked his nightshirt downstairs. "It must have been that," he said.

"Oh, no, hodja!" cried the neighbors. "There was a terrible noise that could not have been made by any such thing as a nightshirt."

"Well you see," said the hodja, "I was in the shirt!"

* * *

My friend General Irby Bennett, Old Guard of Memphis, Tennessee, tells about the manager of a millionaire's magnificent estate who sent for a tinner to repair a leak in the roof of the mansion.

Pat Flinn was sent to do the job, and as he entered the front hall the butler, in a subdued voice, said:

"You are requested to be careful of the inlaid floors as you go through the halls. They have just been waxed."

"Oh, sure there's no danger of me slippin' on them," replied Flinn. "I've spikes in me shoes."

* * *

Lawyers sometimes make ludicrous blunders as well as witnesses, says my friend, Julius Gerock, Jr., of the Gerock Brothers Manufacturing Company, St. Louis, Missouri. He relates the example of a lawyer who was not as discreet as he might have been in the expression of his ideas. He was engaged on a case concerning some pigs.

"Gentlemen of the jury," he began, "there were twenty-four pigs in the drove, just twenty-four; exactly twice as many as there are in that jury box."

* * *

The conversation veered toward the difficulty of defining circumstantial evidence, and George R. Carter of the Cope-Swift Company, Incorporated, Detroit, Michigan, threw light upon the subject with this story:

Miss Miranda Brown and Angelina Johnson were in the midst of a rather heated argument as to the meaning of "circumstantial evidence" when old Uncle Rastus poked his woolly head in at the door. He was immediately besieged to give his worthy opinion on the matter in question.

"De way ah und'stand it, fum 'de way it's been 'splained to me," announced the old fellow, "circumstantial evidence is de fedders dat yo' leaves lyin' 'round."

* * *

A good deed or pleasant word is never wasted. No matter how utterly kind to another seems unappreciated, it is not in vain. What the poet Longfellow wrote of affection may be applied with equal force to every act of benevolence:

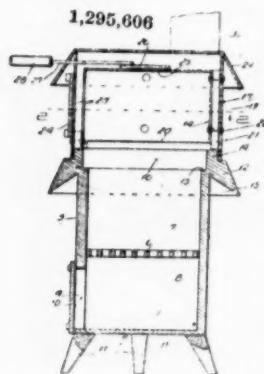
Talk not of Wasted Affection.

Talk not of wasted affection, affection never was wasted; If it enrich not the heart of another, its waters, returning Back to their springs, like the rain shall fill them full of refreshment.

UP TO THE MINUTE NEWS SIFTINGS

ACQUIRES PATENT FOR A STOVE.

George G. Scarborough, Girdletree, Maryland, has obtained United States patent rights, under number 1,295,606, for a stove described herewith.



A heating stove of the character described, comprising a body portion including a grate with a fire-box above the grate and an ash pit below the grate, an annular heat absorbing and radiating element secured to the upper end of the body portion and extending radially and outwardly beyond the same and having a lower inclined deflecting surface, an outer casing having its upper end closed and its lower end open and secured to the top of the body portion and having a larger bore than the bore of the body portion, an inner casing disposed within the outer casing in spaced concentric relation and having its top closed and its lower end open and having a larger bore than the bore of the body portion with a substantially horizontal passage at its lower end, said substantially horizontal passage extending around the inner casing and being disposed in proximity to the heat absorbing and radiating element and leading into the lower end of the space between the inner and outer casings, and a pipe connected with the upper portion of the outer casing.

TELLS OF EASTERN STOVE TRADE.

Business with Philadelphia, Pennsylvania, wholesale stove concerns is moving in a fair way, but spring buying has not opened actively, as had been anticipated, according to the Public Ledger of that city. The trade continues to express an optimistic view as to future conditions and feel that many inquiries received are a good indication of a good volume of business within the next few weeks. Gas ranges are meeting with the most demand in some quarters of the trade. There is also a fair business reported in combination coal and gas ranges. Gas water heaters are beginning to move a little better. Local firms expect that when warmer weather is here that buying of these goods will be stimulated. Stocks on hand are sufficient to take care of a big call from retailers. Oil cook stoves are being taken by buyers in the South, but business is not large, although many inquiries have been placed.

There is a disposition to buy cautiously, retailers expressing an opinion that there may be a decline in prices and do not want to have large stocks of high-priced goods on hand in event of a recession in prices.

The retail trade, however, are keeping in close touch with the market, and this is evidenced by the many inquiries that are being placed with wholesalers. Salesmen on the road for wholesalers are in turn keeping in touch with the retailers, and this has resulted in some fair-sized orders.

While it is early for the fall season, there are many inquiries being received for heaters, ranges and hot-water boilers. There have been a few sales of these goods. Estimates which were submitted to builders on these goods, as well as gas ranges, are expected to bring about a good volume of business, as the stove trade feel that within a few weeks building will show a large increase.

ACCENTUATES IMPORTANCE OF STOVE BOLTS FOR SOUND CONSTRUCTION.

Bolts are very important things. No matter how well constructed a stove is, or how good the material is from which it is made, if the bolts are not dependable, the stove is not good.

One of the claims made for the bolts shown in the accompanying illustration by the manufacturers, The Kirk-Latty Manufacturing Company, Cleveland, Ohio, is that they are of uniform quality. This Company makes a specialty of bolts, nuts and rivets of all kinds and only the best workmanship.

These bolts are round and square headed and are made by The Kirk-Latty Manufacturing Company, Cleveland, Ohio. The Company is continually on the alert to be of assistance to its customers and is ready and willing to help them at all times. Its efforts are tireless to maintain the high standard which it has constructed for itself. Dealers would find it to their advantage to address The Kirk-Latty Manufacturing Company of Cleveland, Ohio, and secure the Company's catalog and price lists.

DEFINES A MUCH ABUSED WORD.

Few words in the English language have been more abused in their application than the term "gentleman." It belongs only to the man who can measure up to the following definition:

"A man who is clean both outside and inside, who neither looks up to the rich nor down to the poor; who can lose without squealing and win without bragging; who is considerate of women, children and old people; who is too brave to lie, too generous to cheat, and who takes his share of the world and lets other people have theirs."

THE WEEK'S HARDWARE RECORD

Of Interest to Manufacturer, Jobber and Retailer

AMERICAN ARTISAN AND HARDWARE RECORD
is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 40 to 45 inclusive.

The Fostoria Screw Company, Fostoria, Ohio, is planning to build a plant.

The Geneva Cutlery Company, Geneva, New York, will build an addition to cost \$75,000.

The R. T. Lippert Saw Company, Millvale, Pennsylvania, has had plans prepared for a plant.

The General Flatiron Manufacturing Company, Johnson City, New York, has purchased additional land for a plant addition.

The Standard Screw Products Company, Detroit, Michigan, is constructing a plant, one story, 60x100 feet, to cost about \$25,000.

The Ideal Manufacturing Company, Hartford, Wisconsin, has purchased a plant and will manufacture small hardware specialties.

The Hoosier Hardware Company, Paoli, Indiana, has been incorporated at \$12,000 to manufacture farm implements by Henry Mayfield, Elwood Holiday and E. L. Wolfe.

The American Steel and Wire Company, Worcester, Massachusetts, will build two additions, 12x91 feet and 12x15 feet, both to be one story high. The improvements will cost approximately \$10,000.

The Bancroft Razor Corporation, Worcester, Massachusetts, has been incorporated to make cutlery with a capital of \$30,000. The incorporators are A. L. Silberstein, Max Schwartz and John H. Meagher.

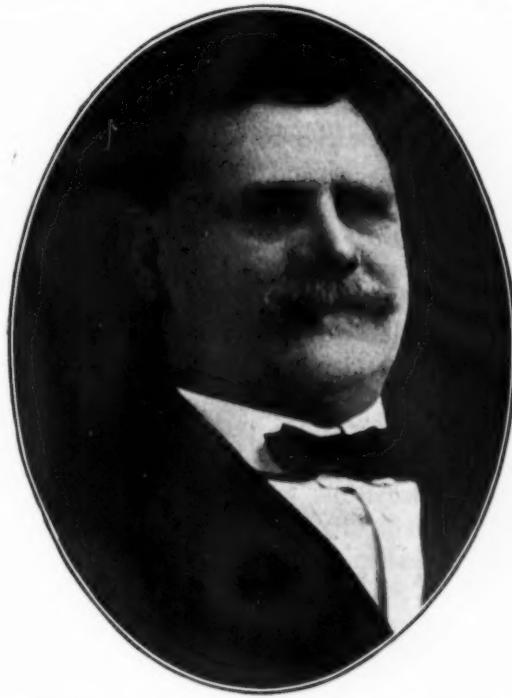
MOVES TO LARGER QUARTERS.

In order to expedite the handling of his increasing business, Max Klaas, member Old Guard Southern Hardware Salesmen, has moved to larger quarters at 5, 7, and 9, Union Square, West, New York City. He specializes in manicure sets, scissors sets, sewing sets, scissors, nail nippers, manicure implements, and decorated toilet articles. The perfection of his service and the excellence of the commodities in which he deals have gained for him a line of customers who spread his praises to others in the trade. The consequence is that new patrons are continually adding to his growing clientèle.

CHICAGO ELECTS HARDWARE DEALER AS ITS CITY TREASURER.

A signal tribute to personal merit and proved integrity was given by the voters of Chicago to Henry Stuckart, well-known hardware dealer, by electing him to the office of City Treasurer, Tuesday, April 1,

1919, on the Democratic ticket. Only one other Democrat was elected all the other offices having been won by Republicans. Mr. Stuckart is prominent in the hardware trade. He was formerly president of the Retail Hardware Dealers' Association and a mem-

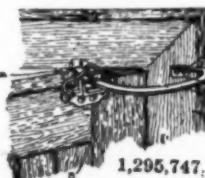


Henry Stuckart, Hardware Dealer, Elected Treasurer of the City of Chicago, Illinois.

ber of the Board of Governors of the Hardware Club of Chicago. He served three terms as alderman of the City of Chicago; once before as City Treasurer; and once as Treasurer of Cook County, in which Chicago is located.

SECURES PATENT FOR A HOLDER FOR HINGE HUNG DOORS.

Edward Heffernan, Sydney, New South Wales, Australia, has been granted United States patent rights, under number 1,295,747, for a holder for hinge hung doors described in the following:



1,295,747

A closure holder comprising two members, one attachable to a hinge hung closure and the other attachable to a closure frame; one of such members being a flat circularly curved metal bar forming a tongue, and the other of such members being a friction gripper consisting of two shoes adapted to embrace said tongue between them, a coiled wire spring adapted to press said shoes toward each other, and a forked bracket in which the shoe ends have a floating fit.

Every cheerful thought points the way to another.

HOME BUILDING CAMPAIGN IS BOUND TO INCREASE SALES OF HARDWARE.

As a means of increasing sales of hardware, the "Own Your Own Home" Campaign is one of the most encouraging movements inaugurated since the signing of the armistice. Obviously, however, it is not self-acting. It needs the energetic advocacy of business men everywhere. The interests of the hardware dealer are bound to be favorably affected by the success of the campaign. New houses mean more sales of locks, nails, sash weights, tools, paints, and other building materials.

The "Own Your Own Home" campaigns promulgated by the United States Department of Labor as a logical and sound way of stimulating business and absorbing labor, was commended to the Governors and Mayors in their recent Washington conference, by Mr. Ernest T. Trigg, President of the National Federation of Construction Industries. Mr. Trigg said this activity carried on by the Division of Public Works and Construction Developments of the United States Department of Labor was a constructive, practical and desirable activity, and urged the Governors and Mayors to get behind those campaigns in their communities. Mr. Trigg said:

"You came here for the purpose of getting some constructive thought as to how you can best solve the question of giving idle labor employment and how you can best hasten the return of normal peace conditions and general prosperity.

"Hon. Ernest Lister, Governor of Washington, in a recent message to the Legislature made this significant remark:

"Speaking from the standpoint of the State, I believe it is our duty and responsibility so to adjust conditions that there will be employment available in the state for every able-bodied person willing to accept it * * *. All of the responsibility for furnishing employment should not be shoved over upon governmental agencies. It is true the nation, state, counties, municipalities and other political subdivisions can assist greatly in handling the problem. But it is equally true that investors who had contemplated the erection of a business building, the individual who desired to erect a new home, the manufacturer who intended making improvements in his factory, all of whose plans were delayed by war conditions, ought now quickly to arrange their affairs that they may proceed and thus aid in providing employment for those who desire and need it."

"Specifically what can a community do to be helpful in this essential revival of private building? There is one concrete program which deserves your earnest consideration, a simple program and yet one of unlimited possibilities. I refer to a local "Own Your Home" campaign. This seems to be a logical step in every community, because:

"1. It meets a fundamental need. The nation is short of homes. Conservative estimates say we are short 500,000 homes since the war began. Some authorities place the shortage at one million.

"2. The campaign is of a character that will call to it every substantial business and civic element in

your community. Your Chamber of Commerce, Board of Trade, general business organizations, your financial institutions, your religious and labor organizations, every element in your community interested in community improvement can be brought to co-operate enthusiastically in this campaign. Now, a campaign in which everybody can and will participate is the sort of a campaign we need at this time.

"3. Frankly, your investment builder, the so-called speculative builder is and will continue to be the cautious builder. But the home is built for use and service and comfort. It is, in fact, the world's greatest investment, but those who build homes look more to comforts, convenience and fuller life as their returns, than to dividend or interests on money put into it. Therefore, home owning today pays the same ratio of that type of returns that it did before the war—indeed, it pays greater returns than before the war, because if this war has made plain a single fact it is the profound influence on our lives in the American home. I am not attempting to pass to you time-worn sentimentalities about the home. Rather, I want to indicate that the intangible profits and returns to the home owner have in no wise been affected other than to be enhanced by the war.

"4. Home building is the logical first step for the further reason that building is so large a part of the entire industry of the country, and 75 to 90 per cent of the building industry is labor. This is of profound significance when we are endeavoring to advise buffer employment for a period of industrial transition. But in addition to this every home that is built, immediately stimulates business locally, and creates the demand for materials and products in more than a hundred correlated industries.

"It would not be difficult to enumerate a dozen other arguments as to why a general building campaign should begin with home building. The arguments are obvious. It is more important to this conference, which is seeking concrete and specific information, to know that the Department of Labor, in its Division of Public Works and Construction Development, has organized the facts on the home building campaign with a national vision in such fashion that it can, on your request, place an outline for a complete campaign in your hands on short notice.

"The Division can provide you with definite plans for organization, it can outline, and furnish newspaper articles for your publicity campaign; it can give you suggestions as to finance; it can, I believe, if occasion demands, send to your community an expert to advise with you. Here is something concrete, of which your communities can avail themselves, and the possibilities in permanent community benefits are beyond calculation."

PROFIT BY NATIONAL CROW SHOOT.

Progressive hardware dealers, quick to recognize that it is to their interest to coöperate in any movement to protect the game and to improve hunting conditions in their vicinity, are evidencing great enthusiasm over the National Crow Shoot, says DuPont Magazine. They see in it the opportunity not only to help

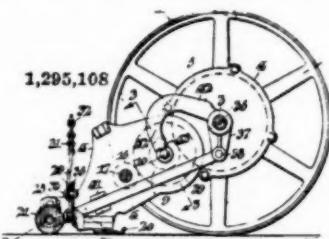
in the protection and propagation of game birds, but also to help the farmers of the community to raise larger crops by guarding their grain against the marauding habits of the crow.

Among scores of letters received from dealers all over the country, the following is typical of their interest in this campaign:

"As a country merchant I know something about the depredations of the crow, and it will give me pleasure to coöperate in the 1919 Crow Shoot. I am requesting my hardware salesmen to study the question and be ready to meet the requirements of our local sportsmen and farmers for supplies or information. I am offering prizes for the best sales records. I purpose, also, bringing the Crow Shoot to the attention of the County Game Association."

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ASSIGNS LAWN MOWER PATENT.

William P. M. Braun, Philadelphia, Pennsylvania, assignor to the Pennsylvania Lawn Mower Works, Philadelphia, Pennsylvania, has procured United States patent rights, under number 1,295,108, for a lawn mower structure described herewith:



Lawn mower structure comprising a ground engaging wheel, rotary cutter mechanism driven thereby, a support for said rotary cutter mechanism, a fixed member on which said support is pivoted to allow movement of said support and said cutter mechanism to different positions above the ground, and means for detachably securing said support to said member for holding said support against pivotal movement with respect to said fixed member and said cutter mechanism in substantially fixed position above the ground.

•••
PAINT IS PROFITABLE SIDE LINE.

When the average retail hardware man embarks in the paint business, he sometimes fails to grasp the fundamental principles essential to the successful and profitable development of a paint line.

The exclusive paint store, or the hardware merchant who establishes a large paint department, places in charge a capable and thoroughly experienced paint man. The dealer who contemplates handling paint as a "side line," however, frequently possesses only a superficial knowledge of paints and their diversified uses. He consequently expects to sell paint as he does jack-knives or tacks.

Paint does not belong in the same class with those commodities, which involve no special detail of use or purpose, and require, therefore, no particular knowledge or selling ability. On the other hand, the intelligent and profitable handling of paint is as simple as the merchandising of any staple commodity, if managed with the same amount of energy and knowledge as would be required in the case of any line with which the general public is not entirely familiar.

When a man wants a pocketknife, he simply walks into a store and selects the knife that appeals to his fancy and purse—not discounting the fact, of course, that every sale involves a certain degree of skill and intelligence. But if the prospective customer has a floor to paint, he depends upon the clerk or salesman for correct information and advice as to the paint he should use, number of coats, quantity required, method of application, etc., and may even ask for color suggestions. This attitude on the part of the customer is displayed in practically every transaction involving the use of paint for any purpose.

Sales possibilities are not confined to the particular paint that a customer asks for and buys. An alert, well-informed salesman will both expand his sales and render a most important service to the customer by visualizing the customer's home and making intelligent, helpful suggestions. He may suggest, for example, paint for the walls, varnish or wax for floors and woodwork, varnish stain for furniture, enamel for woodwork, and, in season, paint for screens and porch and lawn furniture. He may very properly—and profitably—suggest, too, the various accessories needed in every painting operation: brushes, sandpaper, putty-knives, shellac, putty, oil, turpentine and the like. Certainly no other line offers greater sales possibilities to the salesman or merchant of energy and intelligence.

The more paint knowledge a dealer can absorb, the greater will be the sales possibilities opened up for him; but a general knowledge of the different paints for exterior and interior use is ample for any dealer to start with, provided he has push and initiative to go with it.

Present-day paint literature is so explicit in descriptions and explanations of uses and selling points that no dealer need be handicapped by insufficient information on the subject.

•••
BUILDS A NEW WAREHOUSE.

The farming implement part of his business has developed to an extent which makes necessary enlarged storage space. Consequently, H. W. Wilson, the hardware dealer of Red Wing, Minnesota, has closed a contract for the construction of a new fire-proof warehouse. This building will be in addition to the present warehouse in the rear of the Wilson store. When completed it will give a total of 3,450 square feet of storage capacity for agricultural machinery. Mr. Wilson has built up a lucrative hardware business in Red Wing and by his excellent merchandising methods and the trustworthiness of his hardware goods has gained the good will of both city and country customers.

•••
CONSIDERS IT THE BEST OF ALL.

TO AMERICAN ARTISAN AND HARDWARE RECORD:

In renewing my subscription to your most valuable trade journal, I just want to say that I consider it by far the best of all which come to my desk.

FRED SCHWENDIMAN.

Sugar City Hardware and Lumber Company,
Sugar City, Idaho, March 23, 1919.

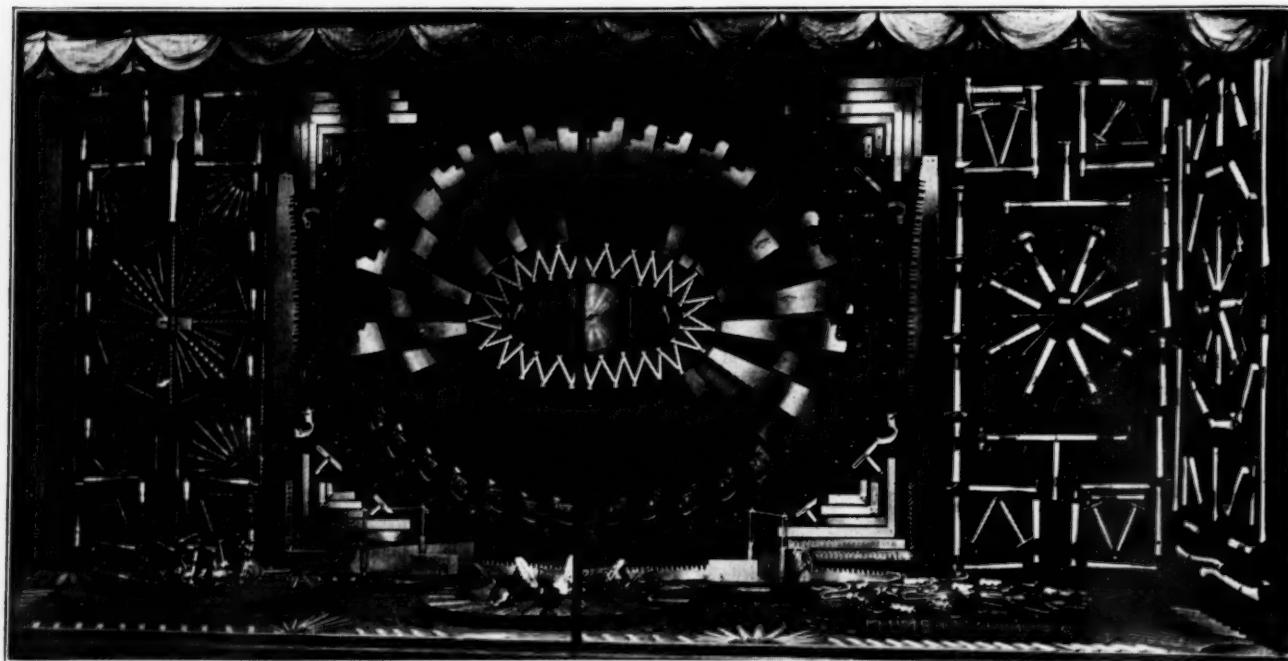
PRINCIPLES AND EXAMPLES OF GOOD WINDOW DISPLAYS.

SYMMETRICAL ARRANGEMENT OF TOOLS MAKES NEAT AND RESULTFUL WINDOW DISPLAY.

The accurately symmetrical designs employed in the formation of a window display of nationally advertised standard tools shown herewith greatly strengthens the effect of the exhibit. The mind of a skilled mechanic tends naturally towards precision of workmanship. Symmetry is the logical result of his handicraft. A deviation of one-sixteenth of an inch, due to the operation of a defective tool, would spoil the product of his labor not to speak of the equanimity of his temper. The display of Disston saws, Stanley

of the exhibit and its well balanced proportions arrest attention. The trained carpenter and cabinet-maker, as well as the tool-loving amateur, who catch a glimpse of such a window display instinctively halt before it in response to an allurement as eloquent as any appeal to the esthetic sense. The background is severely simple—and purposely so. It is made of false wood covered with black cloth. Thus, optical contrast with emphasis is concentrated upon the single intent of the display which is to call attention with the least amount of distraction to the saws, hammers, and other tools.

The glitter of polished steel and the softer light reflecting from polished handles of hammers and chisels are enhanced by the monotone of the sides and back-



Window Display of Nationally Advertised Standard Tools Designed and Arranged by C. H. Arcularius, Secretary Joplin Hardware Company, for the Firm's Store in Joplin, Missouri.

tools, and Plumb hammers designed and arranged by C. H. Arcularius, Secretary Joplin Hardware Company, for the firm's store in Joplin, Missouri, appeals to the careful craftsman primarily because of its suggestions of exactitude in the tools thus exhibited. It conveys the idea of mathematically correct achievement. No true workman is ever satisfied with tools which do not enable him to obtain exact measurements, close joints, and artistic finish.

This window display gives evidence of much preparatory study. It is plain that Mr. Arcularius intended to produce the impression of orderly efficiency as an inherent quality in the service derivable from these well-known tools. Manifestly, a haphazard placing of these goods in the window would have considerably less potent influence upon the passer-by than the cleverly conceived and neatly formed geometric order in which they were shown. The scheme

ground. There is sufficient difference in the intensity of the high lights from the various objects to individualize them into their proper groups. The consequence is that the entire display is presented to the eye and transmitted to the brain as a composite collection of intimately related units in which each article sustains the appeal of all the others. The thought and labor expended upon this window display were fully rewarded by a notable increase in the sales of these standardized tools.

WHEN THEY OPEN SAFE DEPOSIT BOX.

Your heirs will not be very happy when they open your Safe Deposit Box, especially if they find it stuffed with Tax Receipts—evidence of Lost Opportunities! But they will dilate with gratitude if they find a generous bundle of Liberty Bonds!

mains unimpaired; in fact, it should be greatly increased as we re-assimilate our returning soldiers.

On the demand side it is reasonable to assume that military requirements will be greatly reduced. Likewise, it is becoming evident that the demand for our goods in foreign countries, particularly in Europe, is falling off rapidly. The great bulk of our demand will fall upon the first three groups—necessities, luxuries and investments. The demand for necessities is rather inelastic. It cannot vary much. The demand for luxuries or comforts is fairly brisk. The investment group is lagging. Why? Because of the price situation.

What Determines Prices.

The price situation is of dominant interest to you right now. The business world is hesitating, waiting for prices to come down. You have to contend with that condition. You are, therefore, interested in the factors which determine prices.

You have often heard it said that prices are determined by cost plus a reasonable profit. That, gentlemen, is largely theory. We like to kid ourselves into believing that it is true. Such a condition would eliminate a good deal of the risk of business.

But you know well enough, when you stop to think about it, that the theory does not work even in your own stores. If it did, you wouldn't know such a term as "markdown." You do not always buy wisely and the local demand often fools you and you get goods on hand, with your money tied up in them, which do not move.

Then you try to create a demand either by a special advertising campaign, which adds to the cost of selling, or by bargain sales, which reduce or wipe out your profit. Whether that is good merchandising, I do not know, but I do know it is good business when once a merchant gets into this overstocked condition.

On a larger scale, that is about the situation in which the business of the country finds itself right now. Productive capacity greatly exceeds demand at present prices. That productive capacity must be employed just as you must move goods. Buyers believe that a great national bargain sale must come soon. They are waiting for that sale and that is why business lags. Something of that sort is taking place. There must be price deflation before demand will be brisk. There is a limit, however, to which such deflation can go without creating a panic. Cost of production cannot be ignored.

The Wage Factor in Prices.

The largest single item of expense in the production of goods is the labor cost. In steel, for example, the labor of the mines, of the railroads and steamship lines in transportation, and of the foundry and factory men who convert the ore into the steel, constitute the principal item of cost as it is added at each successive stage. That cost cannot be reduced very abruptly. Reduction in cost will have to come thru greater efficiency of labor rather than thru reduction of wages.

Labor even at this critical period is asking for higher wages. It is significant to note that the high wages of the Civil War period dipped but a trifle and almost immediately began a gradual upward trend which car-

ried them even higher than during the war. Wages cannot come down to pre-war levels so long as the cost of living remains higher.

Wages always reduce at a slower pace than commodity prices. I mention these things to show that if we are to avoid panic, prices cannot recede as fast as some people might wish they would.

Prices Governed by Money Conditions.

Prices, however, are influenced by another very vital factor in modern economic organization—money conditions. Cheap money means high prices and dear money means low prices. Our inflated credit situation has cheapened the American dollar, just as the inflated credit situation has reduced the buying power of money all over the world. As this money and credit deflation takes place, there will be a natural tendency to price deflation as well. I mention this to show how complex the whole price situation really is.

The Retailer's Position in the Future.

I have emphasized the supply, demand and price factors because it leads directly to the fundamental problem of the retailer's relation to the whole situation. We have greatly increased production capacity. Our chief dependence for demand must come from the American consumer. You are the connecting link. You are reaching the farmer, the miner, and the laborer. They have large buying powers. If you sell the goods now, you will compel demand from the sources of supply. You control in a large measure the destiny of American business at this hour. Only the selling and organizing genius of America can save us from depression. You know that. What is there to encourage you? I wish to enumerate just a few factors which promise real opportunity.

1. There is a large volume of banked-up business which has been awaiting peace and now awaits price adjustment. Get action on it.

2. Retail and jobbers' stocks are generally low, with actual shortage in many articles. Demand must follow.

3. Building operations are at low ebb. Repairs, painting, etc., have been reduced to a minimum. The nation is outgrowing its housing requirements. Population increases—building operations must grow.

4. Furniture and household equipment will be required for long-deferred needs and for new homes that will follow the expected increase in marriages.

5. Mill and factory stocks are below minimum efficiency requirements for many raw materials and semi-finished goods. These must be supplied.

6. Our railroad, river, canal, roads, harbor and terminal facilities must be expanded to make our transportation facilities fit our business needs.

7. Municipal works, buildings and public utility extensions will be resumed.

8. Shipbuilding will continue to make its demands upon labor, capital, steel and the thousands of items of equipment entering a modern vessel. Over a million men are associated in the new shipbuilding and operating work.

9. Export trade is awaiting transportation and credit facilities in all parts of the earth. There will be a great readjustment in the distribution of the world's commodities—rubber, wheat, tin, sugar, etc.

Prices will decline in some countries now short and may increase where long.

10. Great reconstruction work must go on in Europe to replace the ravages of war. Reconstruction will become a dominant industry. America will take some part in that enterprise.

Certainly the real demand factors were never more promising for active business than they are now. Why do we hesitate? Why do we worry?

That brings me to another great point. Economic opportunities do not mean anything unless we have confidence in them. Someone has said that our chief problems today are a "state of mind." Isn't that exactly it? We have the supply; we have the potential demand, but that demand is lagging. We must take account not only of economic conditions as they are, but of what people think of them. No business success and no period of prosperity have ever been established on pessimism.

At the same time I do not mean that we should be indifferent to the problems before us. The cynic's advice is appropriate: "It's all right to be cheerful, but don't be a cheerful idiot." What I mean is that we must sell confidence to America today as we sold America to the task of "making democracy safe for the world." We achieved this by organization, diligence and devotion of a common cause. The same things will give us the future if we have the faith and back it aggressively, constructively and intelligently with our words and actions. You need to propagate optimism to the action point if you are going to sell any goods except the bare necessities. Slash prices where necessary, but sell the goods.

Producer and Consumer Pressure on the Retailer.

This great selling pressure which is now being exerted upon the merchant is going to affect your position in another way. The producer is vitally interested in distribution clear through to the consumer. The efficiency of present methods of distribution is going to be tested. Short-cuts will be sought. The leak between producer and consumer must be stopped. Efforts will be made to shorten the cycle of distribution wherever genuine economics will be effected thereby. That is your pressure from on top.

On the other hand, the consumer is watching you closer than ever before. There is a very noticeable and organized tendency toward consumer-owned systems of distribution. Social service rather than private profit is coming to be more and more the leading motive of wealth production. Co-operative distribution on a large scale is an accomplished fact in England and other European countries. If it is not to become a fact in this country it will be because the merchants of America provide a more efficient system of distribution and because they have the confidence and good will of the consumer.

The New Cooperation.

Finally, may I be permitted a few observations of what I believe you can and must observe to survive properly this strong producer and consumer pressure. As business men you, individually, must rise to the full stature of your big job. You must not be only merchandising experts in your chosen field; you must be big business men as well. You must know the

science of business in all its branches,—organization, management, finance, selling, advertising, office management, credits, collections, transportation and traffic, accounting and business economics. As I see it, one of the big factors in the success of certain mail-order and chain-store systems consists in their ability to interest the biggest brains of the country in the development of their enterprises. They employ specialists wherever the expert can contribute to the success of their work.

You cannot individually employ the best merchandising brains in the country to aid you in solving your problems, but you can secure these advantages through cooperation in your association. The war has bound the modern world closer together. There is a growing understanding, imbedded in the consciousness of the world that in cooperation and organization there is strength. America has proved to the world that organized power can be democratic in character. Organized power represented by cooperation in your association is democratic in character. Organized power represented in single big business units tends to become autocratic in character.

For this reason you should help with your enthusiasm and your purse every great constructive work which your organization is capable of doing for all of you. Wouldn't it be worth a hundred dollars to each one of you if your association could secure some more exact information about the hardware business, if it employed skilled merchandisers to give advice on advertising, on the training of help, which is one of your big problems right now, on economic conditions as they affect your business, and in carrying on a publicity campaign that will remove once and forever the misinformation about merchants which is repeated over and over again?

Politically, you are largely without help. Think of the solicitude that is shown for the farmer and for labor. The farmers have derived great benefit from agricultural stations, county agents, innumerable bulletins, experiments, free seeds, etc. Labor is protected by various laws. The manufacturer is aided by protective tariffs, information about export trade opportunities, etc. But what prominent and leading work has the government ever done, except as a war measure, to aid retailers by suggestions, establishing schools or sending them "seed" of any sort?

As I see it, your future problems can only be solved by exact knowledge along these lines and that knowledge must largely be gathered and put in shape for your use by your own cooperative efforts. These times compel us to think together about fundamental things more than ever before. I cannot see how you people, whose work is so intricately related to our whole economic system and whose business problems are so varied and large, can really be masters of your calling unless you know a great deal about the things of which I have been speaking.

EXCLUDES WORRY ABOUT INVESTMENT.

If a mortgage on Bill Jones' farm is good enough to buy, what shall we say of a first lien on all Uncle Sam's capital and annual earnings? The Victory Liberty Loan will save you all worry about investments.

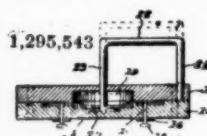
AFFORDS AN INVIGORATING VACATION.

Although the saying has been worn threadbare by ages of use, nevertheless, there is a wholesome truth in the adage that "all work and no play makes Jack a dull boy." Dullness slows down merchandising efficiency as much as any other imaginable factor. The hardware dealer who keeps his nose to the grindstone twelve months in the year loses the power of concentration which is so essential to the handling of the numerous buying and selling problems which beset the twentieth century merchant. He needs to renew the storage batteries of mind and body in order to have the reserve of energy necessary to keep pace with the rapid developments of business in these brisk times.

In other words, he requires the kind of vacation which takes his mind completely away from the cares of business and his body into new scenery and different surroundings. At a very moderate cost, these desirable effects can be achieved by restful travel in the clean and pleasant ships "Seeandbee," "City of Erie," and "City of Buffalo," of the Cleveland and Buffalo Transit Company, Cleveland, Ohio. A choice of routes sufficiently varied in duration to meet the desires and convenience of any business man is at the disposal of the passengers. Descriptive folders and information as to cost can be had by writing to the Cleveland and Buffalo Transit Company, Cleveland, Ohio.

PATENTS A COMBINATION LOCK.

Donald A. McKay, Elnora, Alberta, Canada, has procured United States patent rights, under number 1,295,543, for a combination padlock, described in the following:



A padlock including two plates contiguously arranged and provided with communicating recesses, a shackle, one end of which is arranged through one of said plates and equipped with a master tumbler which normally seats in the recess of the opposite plate, and a plurality of locking tumblers arranged above the master tumbler to retain the latter from movement, and means to operate the locking tumblers for permitting movement of the master tumbler therepast and into the recess in the first said plate.

WHEN IN DOUBT, HUSTLE!

Every time a little fog gathers about general conditions, the mediocre business man sits down to wonder and wait. He is like the man who stops walking because he cannot see the road full two miles ahead.

The successful business man, facing a doubtful situation in general conditions, sees in it all the more reason to hustle. He pushes all the harder for business and, usually, gets all he can handle—and more—while his hesitating competitors are deplored the slowness of things.

A doubtful period is the wrong one in which to hesitate. When in doubt, boost—push—hustle! Dig up all those odds and ends of business you once considered

too small to bother with. Keep your stock as well as your good spirits. Look prosperous, and pretty soon your neighbors will begin to think you are prosperous. And, when they see that you are kept busy while your competitors are stagnating, they will naturally conclude that you are the best man in your line to do business with—and, before long, you will really be prosperous! If conditions don't suit you, change them! Make prosperity!

WHO MAKES CISTERNS CLEANER?

To AMERICAN ARTISAN AND HARDWARE RECORD:

I would like to know who makes a cistern cleaner like the following: It is something like a bucket with an extension rod and is put down to the bottom of the cistern. By churning up and down, it sucks the dirt out of the bottom of the cistern and draws it to the top.

SUBSCRIBER.

—, Iowa, March 25, 1919.

OPPORTUNITIES FOR FOREIGN TRADE PRESENTED BY BUREAU OF FOREIGN AND DOMESTIC COMMERCE.

The Bureau of Foreign and Domestic Commerce through its Special Agents, Consular Officers and Commercial Attachés is receiving information of opportunities to sell hardware and kindred lines in several foreign countries. Names and locations will be supplied on request to the Bureau in Washington or its District Offices. Such requests should be made on separate sheets for each opportunity, stating the number as given herewith:

28831.—A manufacturer in France desires to secure an agency on a commission basis for the sale of oak and beech wood handles for pitchforks, or pitchforks furnished with handles, and handles for all kinds of agricultural implements, such as scythes, spades, shovels, hammers and picks. Terms, cash against documents. Correspondence should be in French. Reference.

28838.—A firm of commercial agents in Italy desires to secure an agency with a stock of goods for the sale of agricultural implements and machinery, hardware, such as nails, screws and locks, and general merchandise. Quotations should be given f. o. b. New York or port nearest to manufacturer. Cash will be paid. Correspondence may be in English. Reference.

28852.—A commercial agent in Australia desires to secure an agency for the sale of motor car and motorcycle accessories, motor car body and top materials and trimmings. Quotations should be given f. o. b. New York. The goods ordered will be handled and paid for by a firm in New York City. References.

28855.—A man in New Zealand desires to secure an agency for the sale of hardware and allied lines, wire ropes, etc. Reference.

28860.—A machinery salesman in France wishes to purchase all sorts of agricultural machinery and equipment. Terms of payment, cash against documents, 30 to 90 days. Correspondence should be in French. References.

28886.—A man from France who will be in this country for several weeks wishes to secure an agency for the sale of hardware, household utensils, tools, etc. Correspondence may be in English. Reference.

28888.—A firm in Venezuela desires to secure agencies for the sale of hardware. Correspondence may be in English. References.

28894.—A commercial agent in France desires to secure an agency for the sale of motor accessories for automobiles. Correspondence should be in French. Reference.

28895.—A man who has resided in this country for several years is now about to return to Holland and wishes to secure an agency for the sale in European countries of general merchandise and hardware.

GIVES SEMI-ANNUAL REPORT.

Statement of the Ownership, Management, Circulation,
Etc., Required by the Act of Congress
of August 24, 1912,

Of AMERICAN ARTISAN AND HARDWARE RECORD, published
weekly at 620 South Michigan avenue, Chicago, Illinois, for
April 1, 1919.

State of Illinois, County of Cook—ss.:

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Etta Cohn, who, having been duly sworn according to law, deposes and says that she is the Business Manager of the AMERICAN ARTISAN AND HARDWARE RECORD, and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Daniel Stern, Chicago, Illinois.

Editor, Richard Moreno, Chicago, Illinois.

Managing Editor, Daniel Stern, Chicago, Illinois.

Business Manager, Etta Cohn, Chicago, Illinois.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Daniel Stern, 620 South Michigan avenue, Chicago, Illinois, is sole owner.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

There are no bonds, mortgages or other such liabilities outstanding against AMERICAN ARTISAN AND HARDWARE RECORD.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (This information is required from daily publications only.)

ETTA COHN,
Business Manager.

Sworn and subscribed before me this 27th day of March, 1919.

(Seal)

SEYMOUR M. LEWIS,
Notary Public.

(My commission expires January, 1921.)

COMING CONVENTIONS.

Southern Hardware Jobbers' Association, St. Charles Hotel, New Orleans, Louisiana, April 8, 9, 10, 11, 1919. John Donnan, Secretary, Richmond, Virginia.

American Hardware Manufacturers' Association, St. Charles Hotel, New Orleans, Louisiana, April 8, 9, 10, 11, 1919. F. D. Mitchell, Secretary, 4126 Woolworth Building, New York City.

Sheet Metal Contractors' Association of Illinois, Jefferson Hotel, Peoria, Illinois, April 9, 10, 1919. Frank I. Eynatten, Secretary, Peoria, Illinois.

Arkansas Retail Hardware Association, Marion Hotel, Little Rock, May 6, 1 and 8, 1919. Grover T. Owens, Secretary, Little Rock, Arkansas.

The Hardware Association of the Carolinas, Charlotte, North Carolina, May 20, 21 and 22, 1919. T. W. Dixon, Secretary, Charlotte, North Carolina.

Alabama, Florida and Georgia Retail Hardware Associations, Jacksonville, Florida, May 21, 22 and 23, 1919. Walter Harlan, Secretary, Atlanta, Georgia.

National Sheet Metal Contractors' Association, Columbus, Ohio, June 10, 11, 12 and 13, 1919. Edwin L. Seabrook, Secretary, 261 S. Fourth street, Philadelphia.

National Warm Air Heating and Ventilating Associa-

tion, Columbus, Ohio, June 11, 1919. Allan Williams, Secretary, Columbus, Ohio.

Sheet Metal Contractors' Association of Ohio, New Southern Hotel, Columbus, Ohio, June 11, 12, and 13, 1919. W. J. Kaiser, Secretary, Columbus, Ohio.

Mississippi Retail Hardware and Implement Association, Agricultural College, July 8, 9 and 10, 1919. D. Scoates, Secretary, Agricultural College, Mississippi.

RETAIL HARDWARE DOINGS.

Arkansas.

James Smith has sold his hardware store at Lincoln to the Benton County Hardware Company of Rogers.

The Farmers Hardware Company, Mansfield, has been incorporated for \$5,000 by Joseph R. Taylor, W. C. Martin, W. L. Terrell and J. L. Higgins.

Indiana.

The Osgood Hardware Company, Osgood, has been incorporated for \$20,000 by William A. Moon, John F. Warbritton, M. Dismore and Glenn M. Dismore.

Iowa.

Hugh Mosher has bought the hardware business of G. A. Foote at Parkersburg.

The John Wyth Hardware Company, Cedar Falls, has changed to the Christenson Messierly Company.

Kansas.

G. W. Kimball has sold his hardware stock at Jewell to Kreaver and Hunninger.

Will Meadows has opened a hardware store in Gaylord.

George E. Brown has succeeded E. Moyer in the hardware business at Hiawatha.

Floyd Smith has taken G. K. Smith into partnership in the Herington Hardware Company at Herington.

Minnesota.

Howard Bristol has sold his interest in the Ashby Hardware store at Ashby to O. F. Peterson.

Berquist Brothers will open a hardware business at Moose Lake.

Missouri.

Mundell and Scott have bought a hardware store in Trenton.

Herbert C. Bailey has purchased a half interest in a hardware store in Browning.

Nebraska.

C. F. White has sold a half interest in his hardware business at Fairbury to O. H. Jones.

Spelts and Noble have sold their hardware store at Fullerton to P. A. Krause and Son.

Frank Dalenberg has bought a hardware business at Gross.

A. C. Ogle will put in a hardware stock at Loup City.

A. S. Hardy has sold his stock to the Sterling Lumber and Implement Company at Sidney.

North Dakota.

A. J. Myhro has sold his interest in the Hamburg Hardware and Implement Company at Hamburg to M. Speiser.

The stock of the Luverne Hardware and Implement Company, Luverne, has sold to J. A. Kromer and George Sanden.

Ohio.

The Milford Hardware Company, Milford, has been incorporated for \$30,000.

Oklahoma.

The Devore Hardware Company, Supply, has been succeeded by F. W. and J. C. Devore.

The Merchant Hardware Company, Muskogee, has sold its stock to H. E. Webb.

Pennsylvania.

F. J. Eagen, Ridgeway, has secured a lease in the I. O. O. F. Building to open a large hardware store.

South Dakota.

Johnson and Haverly, Onida, have sold out to Frank McGinnis.

John Sauer has been succeeded in the hardware business at Huron by John Benney.

Tennessee.

The stock of the Forked Deer Hardware Company, Dyersburg, has been sold to Ben Exum, David L. Craig and W. W. Lauderdale.

The Kingsport Hardware Company, Kingsport, has been incorporated for \$30,000 by P. E. Fuller, C. B. Hancock and O. L. Hancock.

Texas.

Mrs. I. N. Parker has opened a hardware and furniture store on Main Street, Trinity.

The McMillan hardware establishment, Hillsboro, which was purchased a few months ago by J. W. Whitmire has again changed hands, A. Reagor of Penelope taking over the business.

A. T. Pluger and Company, Plugerville, has sold its stock of hardware to McChasney and Blake.

Wisconsin.

Tolzman and Gensman Hardware Company, Schleisinger-ville, are remodeling and enlarging their store.

Joseph Kreiziger has sold his hardware store at Superior to Roy Salter.

Will and Otto Wodzynski have purchased E. C. Josten's interest in the Josten Hardware Company at La Crosse.

E. T. Bisbee has sold his hardware store at Merrill to E. O. Shoemaker and C. F. Lambrecht.

AUTOMOBILE ACCESSORIES SOLD BY HARDWARE DEALERS

The Ajax Auto and Aero Sheet Metal Company, 3801 Avenue I, Brooklyn, New York, has been incorporated for \$15,000 by A. M. Jacobs, H. W. Meyer and H. S. Knabenschuh.

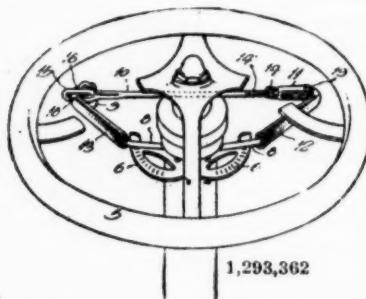
The Jackson Screw Products Company, Jackson, Michigan, has been incorporated to manufacture screws, spark plugs, and small automobile parts. Camiel Thorez is president, Elmer Thayer, vice-president, and J. J. Best, secretary-treasurer.

CARE SHOULD BE TAKEN IN FITTING A NEW CARBURETER.

In fitting a new carbureter be sure that there is no looseness to cause vibration, because if there is a broken flange will be the inevitable result. If vibration is present a small iron bracket should be installed from a nut on the engine frame to the instrument to steady it, also taking the strain off the intake pipe.

PATENTS AN AUTOMOBILE LOCK.

Under number 1,293,362, United States patent rights have been granted to Joseph L. Day, Nash, Oklahoma, for an automobile lock described herewith:



In a locking device engageable with the spark-controlling lever and throttle-controlling lever of an automobile, a rod having an opening through one end and screw threads on its other end, a tubular member having an apertured end adapted to be moved into and out of the aperture of said rod, a lock movable into and out of engagement with the apertured end of said tubular member, a bifurcated and internally threaded member adjustably engaged with the threaded end of said rod, means to secure said bifurcated member in its adjusted positions on said rod, and a tubular member pivotally connected between the furcations of said bifurcated member.

UNDERINFLATION RUINS TIRES.

Underinflation is the "white plague" of the pneumatic tire. More damage is done, possibly, by underinflation than by any other cause. The wavy condition of the tread of the tire is due to its having been run soft, with insufficient air, and consequently becoming loose from the fabric through no fault of manufacture. Most tire manufacturers have inflation schedules which they are very anxious to place in the hands of every motorist.

OBTAINS PATENT FOR TIRE CHAIN.

John Reichert, Racine, Wisconsin, has procured United States patent rights, under number 1,292,879, for a tire chain described in the following:



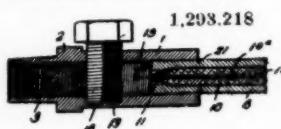
An emergency traction unit for quick application to and removal from a vehicle wheel, consisting essentially of a flexible traction member provided with attached means for removably encircling a wheel spoke to anchor the traction member thereto, said means being flexibly coupled to one end of said member and embodying a loop, the free opposite end of said member having an attached hook quickly applicable to and detachable from said loop to simultaneously lock said means on the spoke and said member in operative position on the wheel, or to release said means for removal with the said attached member.

PREVENT MILDEW IN TOP OF CARS.

Now that spring rains are coming, it is well for dealers to remind the car owner that the top should never be folded when it is wet or damp, as this will cause the formation of mildew and ruin the fabric. Gasoline should never be used to remove grease or dirt from the top, as it ruins the rubber composition and causes blisters. A leather top should be washed with castile soap and water, the latter a little warm, and a top dressing should be applied.

SECURES PATENT FOR A SPARK PLUG.

Duncan W. Shannon and Thaddeus N. Harris, Key West, Florida, have been granted United States patent rights, under number 1,293,218, for a spark plug described herewith:



In a spark plug, the combination with a casing having a longitudinal threaded bore and a diametric threaded bore intersecting the same, said bores being of approximately the same size; of a sleeve threaded into said longitudinal bore and having an external annular groove adapted to register with said diametric bore when the sleeve is in proper position, an insulating element carried within the sleeve, terminals carried by the sleeve and element, and a screw threaded into said diametric bore and engaging said groove when the sleeve is in place or adapted to be projected across its longitudinal bore to close the same when the sleeve is withdrawn.

Never trust to another what you can do yourself.

ADVERTISING CRITICISM AND COMMENT

Helpful Hints for the Advertisement Writer

As necessary to each other as thumb and forefinger of the same hand are the newspaper advertisement and the window display. They work together in picking up profits and in unlocking doors to opportunity. To be perfectly coordinated in attracting patrons to the store, the newspaper advertisement and the window display must deal with the same commodities. That is to say, all or several of the articles shown in the window must be mentioned in the advertisement. In correspondence with the quotations made in the advertisement, easily readable price cards should be attached to the goods on display. In every practical manner, pains should be taken to connect the window display and the newspaper advertisement in the minds of the buying public, so that one quickly suggests the other. Indeed, it is an expedient worthy of general adoption to follow the example of the Churchill Hardware Company of Galesburg, Illinois, and distinctly call attention in the newspaper advertisement to the window display, as this firm does in the copy herewith reproduced from the *Daily Republican Register* of that city.

The passer-by who has read the message in the newspaper experiences a sense of familiarity with the things shown in the window display. This feeling disposes him to examine the goods exhibited. More or less unconsciously, he wants to see whether or not they agree with the printed description of them. To some degree, he has already formed an idea of the character of the goods from the advertisement. In

the case of a reliable firm as the Churchill Hardware Company, the desire to find some particular article



which he needs moves the reader of the advertisement to have recourse to a window display which is announced as containing goods specially priced at discount of 20 per cent.

This advertisement is cleverly designed. It stands out from a page of carefully planned advertisements as distinctively as a red sunset against a background of green hills. The inner border of diamond-shaped boxes, carrying in alternation the word "sale" and the words "20% Discount," compels attention, both because it is unusual and because of the plentiful amount of white space which accentuates its novelty.

It is no use advertising unless you have the goods, and no use having the goods unless you advertise.

HEATING AND VENTILATING

ORGANIZES A NEW ASSOCIATION.

In order to meet local requirements, the Western Warm Air Furnace and Supply Association has been organized at Omaha, Nebraska, with Anton Ohnemus as president; John O. Lamb as vice-president; J. B. Fehlig as treasurer and John H. Hussie as secretary. The executive committee is as follows: Anton Ohnemus, John O. Lamb, J. B. Fehlig, Fred L. Nesbit and E. I. Dodd.

The new association will not conflict with the membership in any other organization in the heating industry. It is intended to work with all similar bodies and to take care of certain local conditions perhaps better than the large organizations can do so. The following constitution and by-laws give a clear conception of the purpose of the association:

Constitution and By-Laws of the Western Warm Air Furnace and Supply Association.

Objects and Aims.

This might be explained in the one word

Cooperation.

For surely this word if properly understood covers the entire field, but it is hoped to accomplish among other good things the following:

"A cooperation governed by the wishes of the members that will benefit the producer, the dealer, and the consumer."

"To increase the popularity of Warm Air Heating and the sale of our goods."

"To eliminate abuses, improve conditions in our business and protect our mutual interests."

"To promote correct installation."

"To assist in the collection of slow accounts and furnish information as to credits."

"To impress upon dealers and the public the value of proper pipe, stacks, fittings, registers, and other accessories."

"To have a clearing house for the exchange of information among the members."

"To keep the manufacturers and jobbers in our industry in closer touch with each other and all matters pertaining to Warm Air Heating, and to have an organization ready for united effort in any emergency."

ARTICLE I.—NAME.

This organization shall be known as the Western Warm Air Furnace and Supply Association.

ARTICLE II.—PURPOSE.

The purpose of this Organization shall be the betterment of warm air heating business through better installations of heating systems; the promotion of fellowship and coordination of common interests.

ARTICLE III.—MEMBERSHIP.

Those eligible to membership of this Association shall be bona-fide manufacturers or jobbers of any

component parts of Warm Air Furnaces, who are located on or west of the Mississippi River.

ARTICLE IV.—OFFICERS.

The officers of this Organization shall be President, Vice-President, Treasurer and Secretary. The first three named officers and two members shall constitute the Executive Committee; the same to hold office for one year or until their successors are duly elected and have qualified.

ARTICLE V.—ANNUAL MEETING.

The regular annual meeting shall be held in February at such place and time as the Executive Committee shall designate.

ARTICLE VI.—REVENUE.

The dues shall be assessed and collected by the Unit system based upon the proportion, the volume of business done in this territory by each firm bears to the amount required to pay the expenses of the Association, which amount shall be determined by vote of members.

ARTICLE VII.—CHANGING CONSTITUTION.

This Constitution may be changed by a three-fourths vote of the members present and after ten days' notice of such proposed change, which notice shall accompany the notice of the holding of the meeting at which such action shall be taken.

By-Laws.

DUTY OF OFFICERS.

1. (a) It shall be the duty of the President to preside at all meetings.
- (b) It shall be the duty of the Vice-President to act for the President in his absence.
- (c) It shall be the duty of the Secretary to keep record of the Minutes of the meeting and to perform such other duties as may be assigned him by the President from time to time.
- (d) The Treasurer shall receive all funds as explained in Article VI. of the Constitution.

ELECTION OF OFFICERS AND EXECUTIVE COMMITTEE.

The first officers and Executive Committee shall be elected at the Organization Meeting and thereafter annually at the regular annual meeting of the organization in February of each year, and shall hold over until their successors are elected.

ANNUAL MEETING.

The Annual Meeting shall be held in February.

SPECIAL MEETINGS.

The Executive Committee may call special meetings at any time, and shall call such meetings whenever so requested in writing by not less than five members.

QUORUM.

One-fourth of the membership shall constitute a Quorum at any Regular or Special Meeting. Any member may be represented by written proxy, and in determining the number of members present at a meet-

ing, members so represented shall be counted the same as were they present in person.

VOTING POWER.

Every firm or corporation having membership shall be entitled to one vote.

DECIDING VOTE.

Any question coming before the meeting shall be decided by a majority vote of the members present.

WITHDRAWAL OF MEMBERS.

Any member who desires to withdraw from this Organization shall give thirty days' notice in writing to the Secretary and until the expiration of said thirty days he shall be bound by the prevailing rules of the Organization.

CHANGING OF BY-LAWS.

Additions to and revision of these By-Laws shall be made by a three-fourths vote of the members present.

ORDER OF BUSINESS.

The Order of Business shall be as follows:

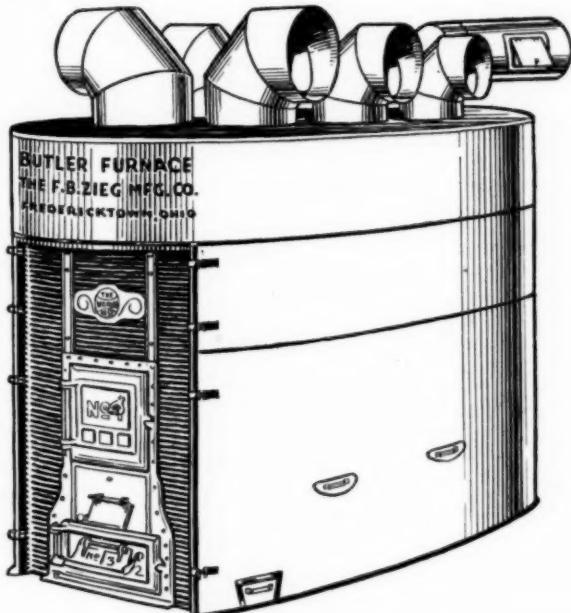
1. Roll Call.
2. Reading Minutes of Previous Meeting.
3. Communications.
4. Reports of Officers.
5. Reports of Committees.
6. Unfinished Business.
7. New Business.
8. Election of Officers.

TERRITORY.

The territory covered by this Organization shall be the cities on and west of the Mississippi line.

HAS "DIFFERENT" CONSTRUCTION.

In the accompanying illustration is shown the Butler Warm Air Heater, made by F. B. Zieg Manufacturing Company, Fredericktown, Ohio. This heater is con-



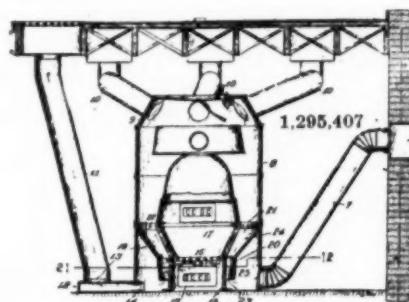
Butler Warm Air Heater, Made by F. B. Zieg Manufacturing Company, Fredericktown, Ohio.

structed "differently", being shaped horizontally and having an unusually long fire travel. Soft coal, slack or wood may be burned in this heater and no changes are necessary. The fire pot may be filled to capacity when wood is used, two foot lengths being laid hori-

zontally. The fire door is 11x12 inches and for burning wood, 13x15 inches; either size allowing the removal of interior parts without dismantling the heater. Buildings with basements as low as five feet can have this heater installed as no pit is required in the installation. The ashpit is deep and the fire pot has a brick lining. The products of combustion are forced to travel horizontally through a V-shaped radiator made of pure ingot iron. Thus a long and quick-acting radiating surface is obtained. Cleanouts are provided in three different places. All ordinary dwellings may install the Butler Warm Air Heater and derive great satisfaction. Dealers and installers should write to the F. B. Zieg Manufacturing Company, Fredericktown, Ohio, for further particulars.

PATENTS A WARM AIR HEATER.

Erastus W. Woods, Chicago, Illinois, has secured United States patent rights, under number 1,295,407, for a warm air heater described in the following:



The combination with a furnace having heating means and an outside casing, of a flaring member in air tight relation at its upper end with

the inner wall of the outside casing and forming therewith an upwardly increasing air passage between an outer wall of the heating means and the inner surface of said flaring member, the lower end of said flaring member extending downwardly somewhat near to the upper surface of the floor of the furnace.

EMPHASIZES NEED OF MOISTURE.

As humidity of the atmosphere controls the distribution of the sun's warmth upon the earth, so does moisture in the air of the house have a controlling influence upon its comfort. If the air in a room is dry, the heat from stove, register or radiator strikes through this dry air readily and, without being absorbed, rises quickly to the ceiling; while, if the air is moist, the heat is absorbed and the general temperature of the atmosphere of the room is perceptibly raised. Clouds have a cooling effect on a hot day because they are masses of moisture, absorbing heat from the sun's rays before it reaches the earth. While a damp climate is enervating in hot weather and biting in cold weather, nevertheless a moderately moist atmosphere in the temperate warmth of the living rooms adds to comfort and works for economy and health. The air of heated rooms is nearly always too dry. In dry air the evaporation from skin, throat, and lungs is increased; illustration of this is the fact that woodwork and furniture usually swell when exposed to the natural summer atmosphere, while they shrink and crack in heated rooms in winter. It is advisable to keep a bowl or open jar or two of fresh water in each heated room, giving the air a chance to absorb moisture from them rather than from your body and the furniture.

NOW IS THE TIME TO BUY COAL.

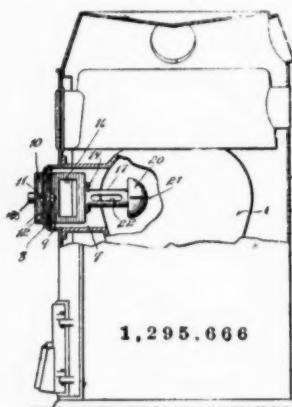
Production of both anthracite and bituminous coal stands at a total of about 50 per cent of full-time output, and most of this shortage is caused by lack of orders, according to reports furnished by the Geological Survey and announced by the United States Fuel Administration. This condition has existed approximately since Christmas time, and in fact production has been at a low ebb ever since the signing of the armistice, on November 11. The demand for coal has been gradually falling off all during the mild winter, with a corresponding decline in production records.

Consumers have been using from stocks accumulated last summer and fall and are still holding back their orders for additional supplies. During the period from November 1, 1918, to March 15, 1919, the loss in production, has been more than 35,000,000 tons, compared with the same period of the year before, during which time very severe weather and considerable car shortage prevailed.

To avoid a shortage next winter, production during the coming summer must be increased considerably. Consumers are advised that the best time to buy coal is when there is a lack of demand for it, and that condition prevails now.

PROCURES PATENT FOR A DEVICE USED IN AIDING COMBUSTION.

Under number 1,295,666, United States patent rights have been granted to Mathew Zentner, of Oshkosh, Wisconsin, for a device used in aiding combustion. This patent is described in the following:



faces for said air.

COAL PRODUCTION IS DECLINING.

As during recent weeks the output of bituminous coal during the week ended March 15 fell approximately 3,000,000 net tons below the production for the same week of 1918, the chief cause of decline being lack of demand. The output was 8,065,000 net tons, according to the estimate furnished the United States Fuel Administration by the Geological Survey.

In the same estimate it is predicted that the close of the coal year on March 31 will show that the production will not exceed that of the previous coal year by more than 8,000,000 net tons, although it stood at an excess of more than 40,000,000 net tons on November 1.

It is estimated that the actual production for the coal year will be approximately 558,000,000 net tons, as compared with 585,885,000 net tons during the calendar year 1918.

Production of anthracite during the week ended March 15, estimated at 1,206,000 net tons, was approximately 20 per cent in excess of the output of the previous week. The same week of a year ago the production was 2,099,000 net tons. Total production for the coal year to March 15 is estimated at 89,317,000 net tons, as compared with 95,370,000 net tons during the same period of the previous years.

During the four months from November 1, 1918, to March 1, 1919, the production of anthracite and bituminous coal combined has been from twenty-three to twenty-nine million tons less than during the same months one, two, and three years previous.

During the week ended March 8 the total loss by all causes from full-time production of bituminous coal was 47 per cent, of which "no market" (lack of orders) comprised 41.9 per cent; mine disability, 2 per cent; car shortage, 1.4 per cent; labor shortage, 0.7 per cent; and all other causes, 1 per cent.

WANTS HEATING PLANT CATALOGS.

A new heating plant is to be installed in the Pulaski County court house, Winamac, Indiana, and the custodian of the building, Henry Smith, wants to receive circulars and catalogs of heating plants.

IDEALS GAIN HEADWAY SLOWLY.

There are projects that exist in a shadowy form in an atmosphere of tepid idealism, admired by those who see that if possible they would be desirable, says Sir Edward Grey. From time to time an attempt is made to embody them in material form and make them of practical use. It is then discovered that what appeared as an ideal to be wholly desirable and amiable cannot be of practical use, unless we are ready to subject ourselves to some limitations or discipline that may be inconvenient and unless we are prepared to overcome some difficulties that were not at first sight apparent. The ideal is found to have, in fact, a stern and disagreeable as well as an easy and amiable side to it. Thereupon a storm beats against those who never thought it desirable—for there are intellects to which most ideals seem dangerous and temperaments to which they are offensive—and those who had previously treated it only with contempt in the abstract offer the fiercest opposition to it as a practical proposal; many of its supporters are paralyzed by the difficult aspects of it, which they had not previously considered, and the project recedes again into the region of shadows or abstract resolutions.

IS SURE TO GO TO A HIGH PREMIUM.

The French have a saying: "Progress is a circle, not a straight line." At some point in the circle of American progress, Liberty Loan prices are sure to go to a high premium. The only way to get the benefit of it is to buy the Victory Liberty Loan when it is offered.

PRACTICAL HELPS FOR THE TINSMITH

PATTERNS FOR GOOSE NECK FINIAL AND RIDGE.

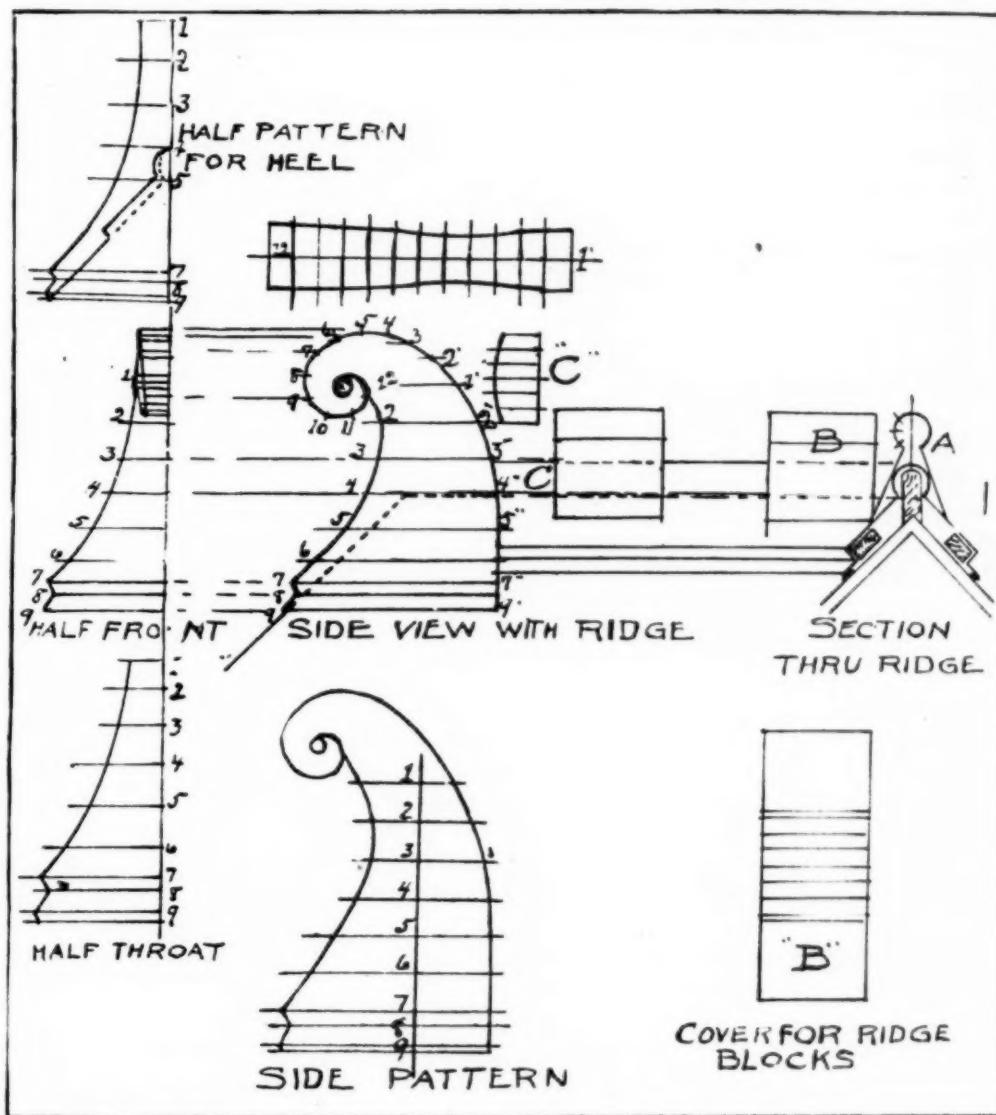
By O. W. KOTHE.

On residence work goose necks as shown in this drawing are met with quite often. To some workmen it is quite a problem to get out. To do this first draw the roof line of side elevation to the required pitch and then over it detail the side view of goose neck making the lines to the desired curvature and height. Very often these curves must be taken from an architect's drawing; other times he furnishes full size details for them, and so the workman can lay out his patterns direct from the full size detail. Having the side view drawn, then draw the half front view and divide the curve 1-7 into equal parts. From each of these points project lines over cutting both throat and heel of the side view. Observe in doing this we save spacing the side view and in this process save considerable other work. Now the patterns for the throat and heel must be developed from the half front view. So pick the girth for throat as 1'-7'-9 and set it below the front as 1-9. In the same way pick the girth for the heel as 1"-9" and set it above the front. Draw stretchout lines and then from each point in the half front view, erect or drop lines to cut those in stretchout of similar number. This gives the miter cut as shown for the half pattern of heel and throat. The cut out for the heel can be made in the manner shown since this is just about a vertical line and requires no special projection.

But to set out the pattern for the side pick the girth as 1-7-9 from half front and set it below the side view. Draw stretchout lines and from each of these

points in side view drop lines to cut those in stretchout of similar number.

This gives the miter cut as it must fit on the throat and heel. The scroll part is simply a reproduction from that of the elevation; it having only a slight curve outward and so that trifle does not matter in



Patterns for Goose Neck Finial and Ridge.

the assembling. The next is to step off the pattern for the heel of goose neck 1'-12'. This is done by picking the stretchout from the side view and then making the width of lines equal those of corresponding lines in the scroll part of half front view. This gives that miter cut to give that tapering effect for the scroll of goose neck. The inner curve past the point 12 is raised out by soldering a little tapering strip in place, making it from $\frac{3}{8}$ to $\frac{1}{2}$ inch on the large end and running it out to nothing.

In looking at the ridge we see an ordinary ridge roll with blocks planted on top at given intervals. Observe the main ridge runs all the way through and

butts against the finial. A pattern for the roll part is shown at "C" which is usually cut on the job. Observe the block A, as it appears in end view; how it straddles the ridge roll; and then appears in the side view as at B. The end view A, is already a pattern and all that is required is the girth to go around it equal in length to B. This is shown in pattern "B" as the cover for ridge block. In planting these blocks in place great care must be taken so they are all on a line, or that the ridge is not twisted. The ridge should be laid on the bench so it is perfectly straight and even on both ends. Then the blocks are planted on tacking them here and there and at the same time sighting them to see that they remain on a line. A chalk line placed over the top is of use at times. Seams must be allowed on each of these patterns and on the curved members the miters should be stripped to make them more rigid.

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MILWAUKEE SHEET METAL MEN HOLD INTERESTING APRIL MEETING.

The request of the journeymen sheet metal workers for an increase of wages occupied a considerable part of the monthly meeting of the Master Sheet Metal Contractors' Association of Milwaukee, Wisconsin, which was held in that city April 3, 1919, with President Frank Romberger in the chair. The matter was discussed from many angles and referred back to the conference committee with a digest of the opinions prevailing at the meeting.

Although much favorable comment was made upon it, definite action was postponed regarding the project of lumping orders to buy in carload lots, which would effect a saving from the lightest to the heaviest gage of from six-tenths of a cent to two and one-half cents per square foot.

Owing to the fact that there is some variation among the Milwaukee sheet metal contractors with respect to the proper charge per hour for labor on repair work, this subject was brought to the attention of the meeting and considerable progress was made toward the establishment of a uniform rate.

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FIRM LOWERS PRICES TO ENCOURAGE BUILDING AND RECONSTRUCTION.

With the laudable object of stimulating a resumption of business in the trade, substantial reductions of price have been made by F. Meyer and Brother Company of Peoria, Illinois, manufacturers of "Handy Furnace Pipe," registers, tin plate, and warm air heater supplies. Announcement of this lowering of prices is made in the following circular to the trade:

"All users of tin plate and sheets have anxiously awaited the outcome of the meeting held by the United States Industrial Board and the leaders in the Steel Trade.

"As a result of this meeting, a reduction of about 5 per cent on both tin plate and galvanized iron becomes effective and will continue in force throughout 1919.

"The effect on furnace pipe and supplies is somewhere from 2 per cent to 3 per cent as labor and other expenses remain the same as before.

"However, we have decided radically to reduce all furnace pipe, bringing it back to pre-war prices, believing thereby to encourage building and reconstruction.

"As our reduction is much greater than that of the mills, we can assure our customers that it is safe to buy, as no lower prices can possibly be made this year.

"Now another matter: The Illinois Association of Sheet Metal Contractors holds its annual convention in Peoria April 9th and 10th. Should you attend the convention, you are cordially invited to visit our factory."

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APPOINTS DELEGATES TO CHAMBER OF COMMERCE OF UNITED STATES.

One of the numerous inducements to membership in the National Association of Sheet Metal Contractors is that, without additional cost, it renders available the benefits of affiliation with the Chamber of Commerce of the United States. This is a thoroughly representative organization embracing the leading associations of business men in every industry and submitting all important matters to a referendum of its component groups. The seventh annual meeting of the Chamber of Commerce of the United States, which is to be held April 29 to May 1, 1919, in St. Louis, Missouri, will deal with grave industrial and social problems. It is advisable, therefore, that the delegates from the constituent associations be men of sound judgment and progressive ideas. These are requirements which were in the mind of National President George Harms when he appointed the following delegates to represent the National Association of Sheet Metal Contractors at the forthcoming annual convention of the Chamber of Commerce of the United States:

Delegates—

E. B. LANGENBERG, St. Louis, Missouri;
EDWIN L. SEABROOK, Philadelphia, Pennsylvania;
JAMES BARRETT, Alton, Illinois;
HARRY C. KNISELY, Chicago, Illinois;
RUDOLPH JOBST, Peoria, Illinois.

Alternates—

PAUL BIERSACH, Milwaukee, Wisconsin;
F. B. HIGGINS, St. Louis, Missouri;
JULIUS GEROCK, St. Louis, Missouri;
CHARLES N. LOUIS, Peoria, Illinois;
W. A. FINGLES, Baltimore, Maryland.

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PLANS TO INCREASE USE OF ZINC.

The American Zinc Institute, in its campaign to increase the uses of zinc, is advocating spelter for rail bonding purposes.

One of the largest street railway companies recently made a considerable purchase of spelter for use in the manufacture of its Nichols Joints.

Engineers in charge of bonding operations report that viewed from price and adaptability standpoints, spelter is unexcelled for such work.

Zinc is comparatively plentiful and relatively cheap, and in many directions it is satisfactorily taking the place of more expensive metals.

SQUARE TO OCTAGON CORNICE MOULDING.

By O. W. KOTHE.

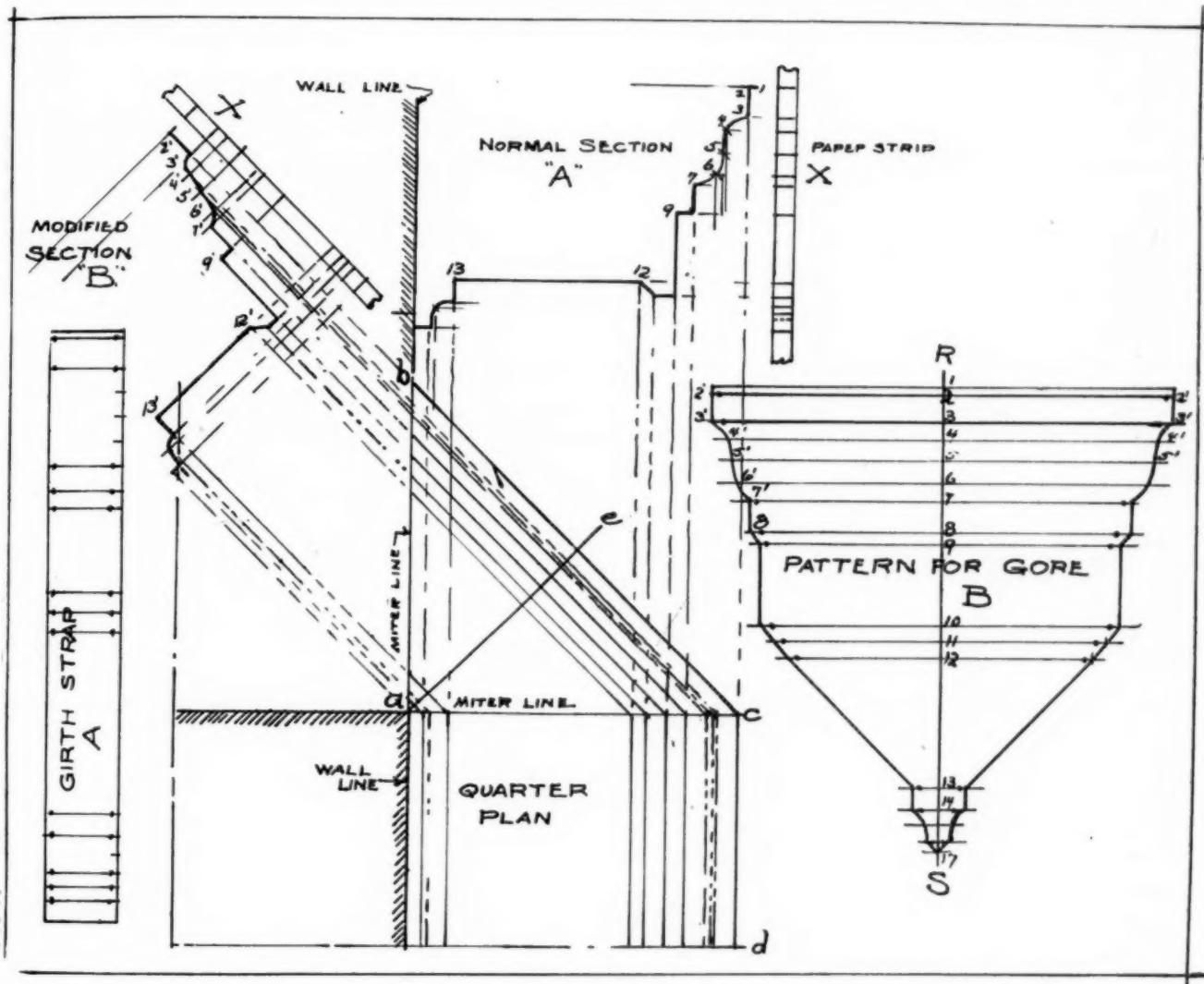
Relying to the sketch of Mr. C. Polman of New Orleans for the gore pattern where a moulding transforms from square to octagon, the enclosed drawing will show how to do this.

First draw the normal section "A" and divide all curved lines in equal spaces, numbering points as shown. Then draw the quarter plan, letting -a-c, a-b be the miter lines. Observe these miter lines are the extension of the square base lines, which makes the side mouldings have straight cuts. So from all points

section "B" and set it on line R-S in numerical order. Draw stretchout lines, and with dividers pick the length of lines from -a-e of plan and set them on similar line in stretchout, as 2-2'; 3-3'; 4-4'; 5-5', etc. This enables tracing the miter cuts and gives the pattern. A girth strap is only required for the side pieces as shown by "A." This strap is marked from normal section "A."

NATIONAL ASSOCIATION SHEET METAL CONTRACTORS GAINS NEW MEMBERS.

A gratifying increase in membership, due to a vigorous campaign, was reported by Edwin L. Seabrook,



Pattern for Square to Octagon Cornice.

in section "A" drop lines into miter line -a-c of plan, and then from each of these points project them parallel to b-c of plan. Observe how this foreshortens the spacings. Therefore, a modified section must be developed in order to obtain the girth for the gore.

Place a narrow paper strip X parallel with the face of cornice section "A," and from each point project lines on to paper strip. This gives the altitudinal positions of points for maintaining the modified section of equal height. Transfer this paper strip X to the position X', which is parallel to plan line c-b. From each point in this strip X' square lines into those lines projected from miter line a-c as in points 1'-2'-3'-4'-5', etc. This gives the modified section "B."

To set out the pattern for gore, pick the girth from

secretary of the National Association of Sheet Metal Contractors of the United States during the month of March. More than one hundred and fifty firms have joined the organization since the beginning of the present year. Locals have been organized under the jurisdiction of the National Association in St. Paul, Minnesota, and Warren, Ohio.

Thanks to the assistance of the National Secretary the recently organized local in Newark, New Jersey, is making satisfactory progress. About thirty firms have indicated their desire to become members. The officers of the local are enthusiastic in the performance of their functions and leave no effort untried to sustain the interest of the membership.

Considerable preliminary educational propaganda

has been done among the sheet metal firms of Middlesex County, New Jersey. As a result, it is confidently expected that the contractors of this district will join forces in the formation of a strong local embracing the sheet metal trade of the county.

Applications for membership are being received in various parts of the country by locals connected with the National Association of Sheet Metal Contractors of the United States. Mr. Seabrook states that the increase of membership to date already exceeds that of the last convention year. He declares that there seems to be no doubt that new members to be reported at the Columbus, Ohio, convention will be numerically greater than at any other time in the history of the Association. Organization has advanced to such a degree in Iowa that a number of firms in that state have expressed a desire for the establishment of a state organization. A meeting is under contemplation for the purpose of forming such a state body.

COMBINES SERVICE WITH QUALITY.

C. G. Hussey & Company, Pittsburgh, Pennsylvania, in a measure, attribute their success in the manufacture of sheet metal workers' materials to the fact that they have always been aware that success must be paid for—quality and efficient service being the price. They, at all times, stand ready and willing to coöperate with their customers. Among the articles manufactured by C. G. Hussey & Company are: sheet copper, bottoms, roll copper, tinned and polished copper, nails, spikes, rivets, conductor pipe, eaves trough, elbows, shoes, miters, etc. All their products are made of high grade materials by skilled workmen. Dealers can secure price lists and more detailed information by addressing C. G. Hussey & Company, Pittsburgh, Pennsylvania.

NOTES AND QUERIES.

Economy Warm Air Heaters.

From G. F. Gale, Vinton, Iowa.

Please advise where I can get repairs for the Economy Warm Air Heater.

Ans.—This was made by the Economy Furnace and Heater Company of Wellston, Ohio, who are out of business. The repairs and parts were purchased by the Eclipse Manufacturing Company of that city who have discontinued business for the present.

Double Blast Fire Pot.

From C. B. Rose, Louisiana, Missouri.

Kindly advise who makes the Double Blast Fire Pot.

Ans.—Double Blast Manufacturing Company, North Chicago, Illinois.

Iceless Refrigerators.

From C. A. McKamy, Seaton, Illinois.

Who besides the Willis Manufacturing Company of Galesburg, Illinois, make iceless refrigerators?

Ans.—The Fridger Factory, 327 North Wells Street and the McClellan Refrigerating Machine Company, 570 West Adams Street, both of Chicago.

Arex Siphonage Ventilator.

From Aurora Hardware Company, Aurora, Nebraska.

We would like to know who makes the Arex Siphonage Ventilator.

Ans.—Arex Company, 1591 Conway Building, Chicago, Illinois.

Fibre Gears.

From John D. Morrell, Topeka, Indiana.

Will you kindly tell me where I can buy fibre gears?

Ans.—Foote Brothers Gear and Machine Company, 210 North Carpenter Street; William Ganschow Company, 1001 Washington Boulevard; and Wilmington Fibre Specialty Company, 614 West Adams Street; all of Chicago.

Flour Sifters.

From F. Y. Jensen, Ephraim, Utah.

Would you please give me a list of flour sifter manufacturers?

Ans.—Andrew Wire and Iron Works, Rockford, Illinois; Barnard and Leas Manufacturing Company, Moline, Illinois; J. L. Clark Manufacturing Company, Rockford, Illinois; Iddings Company, Warren, Ohio; Morgan Spring Company, Worcester, Massachusetts; Fred J. Meyers Manufacturing Company, Hamilton, Ohio; National Enameling and Stamping Company, 411 Fifth Avenue, New York City; Nordyke and Marmon Company, 1290 Kentucky Avenue, Indianapolis, Indiana; Peoria Can Company, Peoria, Illinois; The Republic Metalware Company, Buffalo, New York; Robinson Manufacturing Company, Muncy, Pennsylvania; Sprout, Waldron and Company, Muncy, Pennsylvania; Werner and Pfleiderer Company, 1232 North Niagara Street, Saginaw, Michigan; and Wolf Company, Chambersburg, Pennsylvania.

Formula for a Paste.

From W. A. Covell and Son, 228 West Fourth Street, Waterloo, Iowa.

Can you furnish us with a formula for a paste for holding labels to a tin can?

Ans.—

1. Four parts shellac, two parts borax, thirty parts water; boil until the shellac is dissolved.

2. Add four ounces dammar varnish to a pound of tragacanth mucilage.

3. Balsam of fir, one part; turpentine, three parts; us only for varnished labels.

4. Butter of antimony is good to prepare the tin for the label.

5. Venice turpentine added to good starch paste makes an excellent mounting medium.

6. A good paste is composed of the following: Dissolve rye flour in a solution of caustic soda, dilute with water, and in so doing stir all the time. To this paste add Venetian turpentine—a few drops to each half pound of flour.

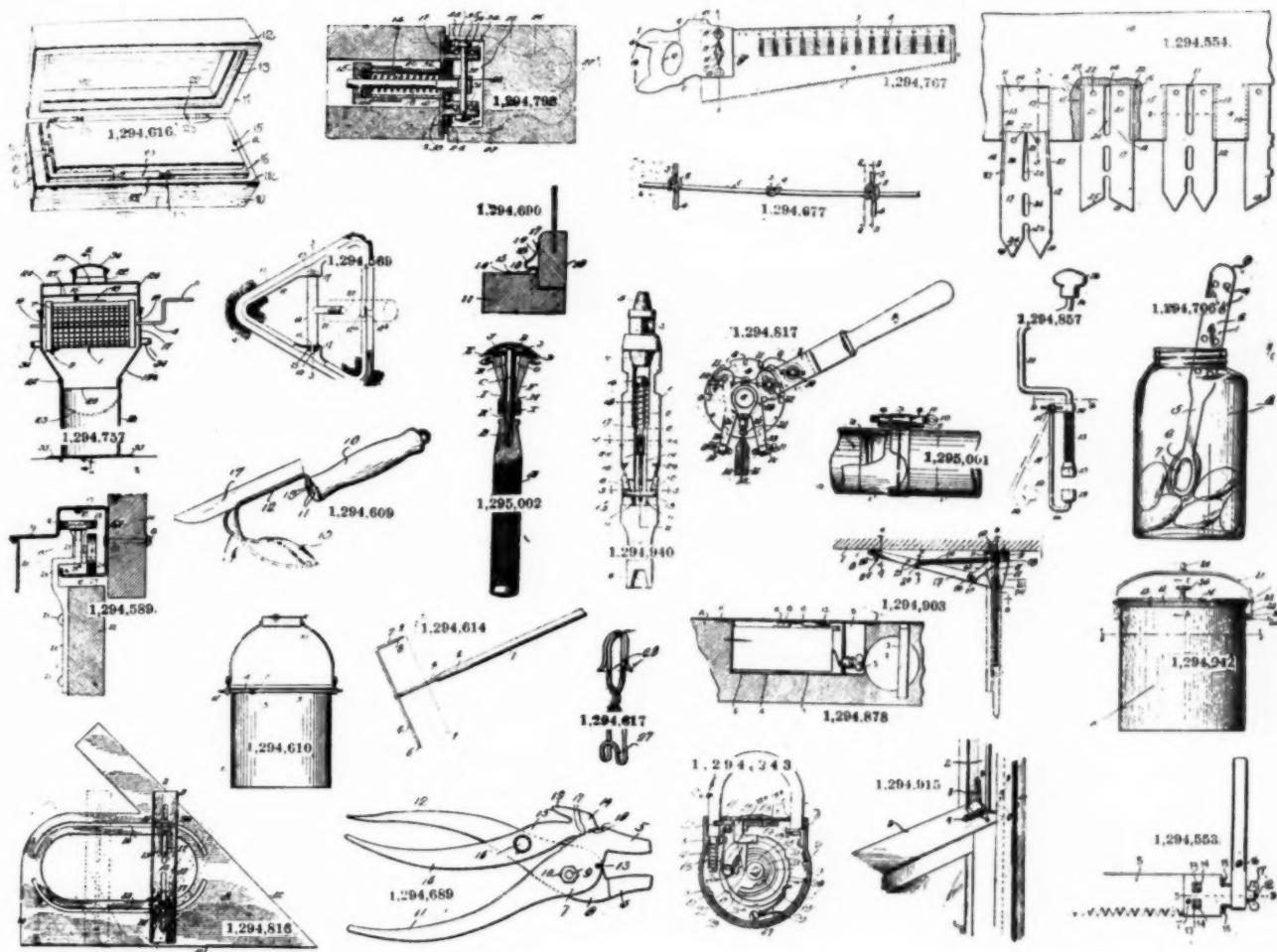
ITEMS.

The plant of the Dayton Metal Products Company at Dayton, Ohio, has been taken over by the Domestic Engineering Company.

The Holan Metal Products Company, 3115 West 41st Street, Cleveland, Ohio, has been incorporated for \$50,000. H. D. Brainerd, Frank J. Jirka and James Holan are the incorporators.

H. Luban and N. Yampol have organized the Badger Sheet Metal and Furnace Works at 1323 State Street, Milwaukee, Wisconsin. The firm will manufacture cornices, ceilings, copper work, automobile fenders and radiators, etc.

NEW PATENTS.



1,294,533. Saw-handle. Lee A. Smith, Garden Valley, Texas. Filed Dec. 17, 1917.

1,294,554. Insertible Saw-Tooth. Walter P. Smith, Reform, Ala. Filed Dec. 5, 1917.

1,294,569. Mop. Edward H. Tate, Malden, Mass. Filed April 1, 1918.

1,294,589. Track and Hanger for Sliding Doors. William Wolfe, Somerville, Mass. Filed Oct. 29, 1918.

1,294,609. Fish Opener and Scaler. Charles C. Boone, Mackay, Idaho. Filed July 16, 1918.

1,294,610. Adjustable Detachable Bail. William Philip Bosserman, Tangier, Okla. Filed Jan. 22, 1917.

1,294,614. Garden Hoe and Weeder. Earl Canary, Myrtle, Idaho. Filed Sept. 10, 1917.

1,294,616. Whetstone-Box. Knut Carlson, Yonkers, N. Y. Filed April 17, 1918.

1,294,617. Pulley Clothes-Line. Louis Joseph Cartisser, Bayonne, N. J. Filed July 8, 1918.

1,294,677. Barbed Wire. George Klenk, Rexburg, Idaho. Filed Sept. 18, 1918.

1,294,689. Combination Pliers and Wrench. Ole H. Mellum, Union, N. D.

1,294,690. Weather-Strip. Emil J. Meyer, Cape Girardeau, Mo. Filed Feb. 28, 1918.

1,294,706. Canning Device. Nellie M. Rising, Weston, W. Va. Filed July 8, 1918.

1,294,757. Ash-Sifter. Filippo Bentivegna, Boston, Mass. Filed Dec. 22, 1917.

1,294,767. Saw Attachment. Dean R. Burleigh, Farmington, N. H. Filed Aug. 8, 1916.

1,294,793. Hinge. Isaac Clinton Gray, La Fayette, Ind. Filed Jan. 12, 1918, Serial No. 211,608. Renewed Dec. 28, 1918.

1,294,816. Miter-Square. Chresten Torben Madsen, Oakland, Cal. Filed Aug. 22, 1917.

1,294,817. Saw-Set. Chresten Torben Madsen, Oakland, Cal. Filed Nov. 22, 1917.

1,294,857. Attachment for Wrenches. Clarence F. Yuncker, Dodge City, Kans. Filed July 17, 1918.

1,294,878. Level. Michael H. Constantine, Franklinville, N. Y. Filed June 8, 1918.

1,294,903. Door-Closer. Alvis Jackson Hathcox, Durant, Okla. Filed May 27, 1918.

1,294,915. Anti-Window-Rattler. Bernard Keister, Cleveland, Ohio. Filed Oct. 22, 1917.

1,294,940. Finishing-Tool. Clarence Lamont Nichols, Randlett, Okla. Filed Nov. 13, 1918.

1,294,942. Cooking Vessel. Jan Orawiec, New Salem, Pa. Filed July 1, 1918.

1,294,943. Permutation Lock. Elkannah S. Perry, Newark, Ohio. Filed June 1, 1918.

1,295,001. Hose-Clamp. Louis O. Brown, Toledo, Ohio. Filed Apr. 12, 1918.

1,295,002. Adjustable Safety-Razor. Fernand Cailleau, Atlanta, Ga. Filed Oct. 24, 1918.

WEEKLY REPORT OF TRADE AND THE MARKETS

DOMESTIC DEMAND FOR STEEL LAGS WHILE EXPORT INQUIRIES ARE ON THE INCREASE.

Reductions in the production of steel reported last week reflect the slump in current demand due to holding off for the new prices. The increased orders during the week, as a result of the announcement of the new schedule, is expected to result in an increase in production during the present week.

Production during the week was estimated at 70 per cent of capacity, which in view of the increased facilities is equal to a much greater percentage of pre-war capacity. The plants of the leading interest were affected to some extent according to reports in the trade.

There has been considerable discussion of the proposed rail order by the Railroad Administration, but nothing tangible has developed. The tonnage discussed runs all the way from 200,000 to 2,000,000. Other orders from the railroads are expected to be comparatively light. The railroads are not in need of cars. In fact they have more cars at present than they need. The same is true to a less extent of other equipment, and there is little prospect that the demands for this purpose will be extensive. Rails are needed, and the only thing that is standing in the way of the order is the lack of money, and also the attitude of the railroads towards construction work by the Government. The steel interests who are trying to keep their mills going in the general interests hope for an arrangement in the present negotiations that will enable the administration to go ahead with the improvements.

Increased demand for steel for export is one of the features of the market following the announcement of the new price schedule. The exporters followed the same course in holding up orders that the domestic manufacturers followed, and the orders now being placed represent for the most part the accumulated demand. The volume of business from this source shows a relatively more important increase than occurred in the domestic demand.

Orders coming out stipulate immediate delivery, and the market is rapidly filling up with a demand that is urgent. This condition tends to increase current production, and it is expected that some of the plants that have been working on part time will resume on a bigger scale. It also tends to distribute the orders in such a way as to make it difficult for new buyers to enter with the assurance of desired deliveries.

STEEL.

In Pittsburgh it is estimated that several weeks of steel orders will be required at the present rate to make up for the decreased buying that for several weeks ruled in anticipation of the price reduction.

The buying is declared to be of the same general character with no new classes coming into the market. Leading steel fabricating interests say that before the war \$28.00 per ton was paid for structural shapes at the mill and that this price afforded a fair profit. Allowing \$12.00 a ton since that time for increased cost, being about 43 per cent, the price now should not be over \$40. Above that figure the builders, Pittsburgh predicts, will not become buyers. The new price, however, is \$49, against \$60 under the war industries board control, there having been reductions respectively of \$4.00 a ton last December and \$7.00 ten days ago. It is thought that buyers will probably look for another reduction in June.

COPPER.

The War Department authorizes the following statement from the office of the Director of Sales:

"An agreement has been reached whereby the United Metal Selling Company, representing the copper producers, will sell for the War Department approximately 100,000,000 pounds of copper and also whatever amount of copper scraps the War Department has to dispose of. Not less than 5,000,000 pounds of copper will be delivered by the United States to the copper producers each month for a period of 10 months, and then 10,000,000 pounds of copper per month will be delivered for a period of five months.

"It was further agreed that the amounts delivered to the copper producers would be at least 10 per cent of their total sales, and in the event of good market conditions the copper producers would take in excess of this amount. The copper will be sold by the copper producers at market prices as determined by the average published quotations. A small consideration will be allowed the copper producers in marketing the copper for the Government to cover expenses of sales."

C. F. Kelly, president of the Anaconda Copper Mining Company and chairman of the Copper Export Association, gave out the following statement on behalf of the committee representing the association which returned from Europe Saturday.

"The investigation of the statistical position and the industrial conditions in Great Britain, France, Italy, and the Central Powers as regards non-ferrous metals, particularly copper, were satisfactorily accomplished.

"Stocks of copper while apparently large are concentrated in the hands of the respective Allied Governments. Germany and what was Austria have completely exhausted their respective stocks and will undoubtedly be in the market for large quantities of copper as soon as trade restrictions are removed.

"The copper consuming industries in the Allied countries are without stocks of metals. Government stocks are being used and will be very much reduced

in the near future by distribution among the consumers who are now doing a fair business.

"The solution of labor difficulties and the transportation of industrial plants and transport system from a war to a peace basis are the factors that are impeding the resumption of business.

"Great Britain, France and Italy have extensive and ambitious plans under consideration for the electrification of railways and for the construction of centrally located plants from which electric power will be transmitted to manufacturing and industrial centers."

The domestic copper market is dull, electrolytic being quoted at from 15 $\frac{1}{4}$ to 15 $\frac{1}{2}$ cents.

TIN.

Trading in tin remains within the requirements for immediate needs under the fixed price of 72 $\frac{1}{2}$ cents for the Government's holdings of Straits tin. As melters of Bolivian tin have agreed with the Government's request not to sell any of their tin until the Government's holdings are sold, there is practically no tin available at present below the 72 $\frac{1}{2}$ cents fixed price, but it is hoped that the restriction will hasten the liquidation of tin and that a free market will be established sooner than expected. London cables came £3 lower in all positions, Straits spot being quoted at £234.

The spot demand is small and the outside market is easier as sellers here and in other cities now seem to have some supplies they are free to sell and have concluded that it would be wise to dispose of same at around 71 cents for 99 per cent in New York and at the same price for pure tin in other cities. One dealer here alone has Straits for his retail trade and is asking 72 $\frac{1}{2}$ cents per pound.

The easier market is attributed to the uncertainty as to the price at which final settlement will be made of the Government importations.

LEAD.

The lead market is quiet with prices slightly lower, namely, 4.90 cents St. Louis basis. At London spot lead has declined to £26, 10s, and future to £25.

SOLDER.

No further changes have taken place in the solder market, prevailing prices in Chicago being as follows: Warranted, 50-50, per pound, 40.5 cents; Commercial, 45-55, per pound, 37.2 cents; Plumbers', per pound, 33.9 cents.

SPELTER.

The spelter market is steady, spot and April being quoted 6.10 @ 6.25 cents, East St. Louis delivery. Producers seem to hold a little better opinion of the spelter situation and some are even predicting that the market is in for an improvement. It is not easy to say exactly what they base their opinions on, but it is partly to do with the belief that the reduction in wages at the western smelters will cause some strikes with consequent shutdowns, and partly the hope that spelter will benefit from the better demand that is being experienced in the copper, iron and steel indus-

tries. Moreover, as the Government will probably settle on a plan this week for the disposal of its stocks, what has been an unsettling influence will be removed.

SHEETS.

Demand for sheets has been relatively satisfactory of late. Since the reduction which became effective March 21st there has been uniformly a much better flow of orders and mills consider the condition more or less satisfactory, certainly very satisfactory by comparison with demand for other steel products. As a result of heavier bookings mill operations are increasing slightly, and this week will probably average well above 60 per cent of capacity.

The automobile industry has taken a still firmer hold and is enlarging its plans for production, evidently finding even better sale for cars than was anticipated. The automobile trade goes far to help out in the matter of sheet demand, taking care of a very considerable part of the total output.

Sheet prices appear to be firm all along the line and mills have little expectation that there will be shading. Regular prices are: Black, 28 gauge, 4.35 cents; blue annealed, 10 gauge, 3.55 cents; galvanized, 28 gauge, 5.70 cents.

TIN PLATES.

American tinplate manufacturers are offering tinplate for delivery in London at 1 shilling 6 pence (about 36 cents) per box cheaper than the fixed Welch prices. Already America has secured contracts for deliveries of tinplates to Spain, Holland, Italy and the Near East, which markets were monopolized before the war by Welsh makers, except for a small amount of German competition.

OLD METALS.

Although everything is set and ready for an active market movement in scrap, its arrival is still delayed. Business is quieter this week, if anything, than it has been for some weeks past.

Wholesale quotations in the Chicago district which may be considered nominal, are as follows: Old steel axles, \$28.00 to \$30.00; old iron axles, \$28.00 to \$30.00; steel springs, \$17.00 to \$17.50; No. 1 wrought iron, \$15.50 to \$16.00; No. 1 cast, \$21.00 to \$21.50, all net tons. Prices for non-ferrous metals are as follows, per pound: Light copper, 10 $\frac{3}{4}$ cents; light brass, 6 $\frac{1}{4}$ cents; lead, 3 $\frac{1}{2}$ cents; zinc, 3 $\frac{3}{4}$ cents; cast aluminum, 17 $\frac{1}{2}$ cents.

PIG IRON.

Opinion about the price cut in pig iron is still divided. While in some districts new prices so far have met with a rather indifferent reception, other districts believe the new price agreement will result favorably. In some quarters there is a disposition to await further developments as they believe that the market cannot be stimulated by artificial means, but almost everyone concedes that the stabilization resulting from a determination of price will tend to bring out business. The trade would be more convinced in the stability of the present price level if the Government's agencies would lead the way with actual buying.

Current Hardware and Metal Prices.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

METALS.		LEAD.	AUGERS	BEATERS.
American Pig.	\$5 50			
Bar.	6 00	Boring Machine.	60%	Carpet.
Sheet.		Irwin's.	25%	No. 7 Tinned Spring Wire... \$1 10
Full coils.	per 100 lbs. \$8 50	Carpenter's Nut.	50%	No. 8 Spring Wire coppered... 1 50
Cut coils.	per 100 lbs. 8 75	Hollow.		No. 9 Preston. 1 75
PIG IRON.		Bonney's.	per doz. 30 00	Egg.
Basic.	\$34 40	Stearns, No. 3.	60 00	No. 50 Imp. Dover. \$1 10
Northern Fdy., No. 2.	34 00			No. 102 " tinned. 1 35
Southern Fdy., No. 2.	40 25			No. 150 " hotel. 2 10
Lake Sup. Charcoal.	38 70-39 00	Pig tin.	76 1c	No. 10 Heavy hotel tinned. 2 10
Malleable.	34 50	Bar tin.	77 1c	No. 13 " " 3 30
FIRST QUALITY BRIGHT TIN PLATES.				No. 15 " " 3 60
Per box				No. 18 " " 4 50
IC 14x20.... 112 sheets	\$13 20	ADZES.		Hand.
IX 14x20....	14 63	Carpenters'.		8 9 10 12
IXX 14x20....	16 30	Plumbs.	Net	Per doz. \$11 50 13 00 14 75 18 00
IXXX 14x20....	17 50	Coopers'.		Moulders'.
IXXXX 14x20....	18 70	Barton's.	Net	12-inch. Per doz. 20 00
IC 20x28....	26 40	White's.	Net	
IX 20x28....	29 25	Railroad.		BELLS.
IXX 20x28....	32 60	Plumbs.	Net	Call.
IXXX 20x28....	35 00			3-inch Nickeled Rotary Bell, Bronzed base. per doz. \$5 50
IXXXX 20x28....	37 40			Cow.
COKE PLATES.				Kentucky. 30%
Cokes, 180 lbs....	20x28 \$15 90	AMMUNITION.		Door.
Cokes, 200 lbs....	20x28 16 20	Caps, Percussion—per 1,000.		New Departure Automatic. \$7 50
Cokes, 214 lbs....	IC 20x28 16 80	F. L., Waterproof, 1-10s. 20&21%		Rotary.
Cokes, 270 lbs....	IX 20x28 19 20	G. D. 20&21%		3-in. Old Copper Bell. 6 00
BLUE ANNEALED SHEETS.		Musket.	20&21%	3-in. Old Copper Bell, fancy. 8 00
No. 10.... per 100 lbs. \$4 57		Shells, Loaded.		3-in. Nickleed Steel Bell. 6 00
No. 12.... per 100 lbs. 4 62		Loaded with Black Powder. 20&21%		3&1/2-in. Nickleed Steel Bell. 6 50
No. 14.... per 100 lbs. 4 67		Loaded with Smokeless Powder, medium grades. 20&21%		
No. 16.... per 100 lbs. 4 77		Loaded with Smokeless Powder, high grade. 20&21%		
ONE PASS COLD ROLLED BLACK.		Winchester.		
No. 18-20.... per 100 lbs. \$5 17		Smokeless Repeater Grade. 20&21%		
No. 22-24.... per 100 lbs. 5 22		Smokeless Leader Grade. 20&21%		
No. 26.... per 100 lbs. 5 27		Black Powder. 20&21%		
No. 27.... per 100 lbs. 5 32		U. M. C.		
No. 28.... per 100 lbs. 5 37		Nitro Club. 20&21%		
No. 29.... per 100 lbs. 5 42		Arrow. 20&21%		
GALVANIZED.		New Club. 20&21%		
No. 16.... per 100 lbs. \$5 97				AXES.
No. 18-20.... per 100 lbs. 6 12		Gun Wads—per 1000.		Boys' Handled.
No. 22-24.... per 100 lbs. 6 7		Winchester 7-8 gauge. \$2 25		Niagara. 12 50
No. 26.... per 100 lbs. 6 42		" 9-10 gauge. 1 94		
No. 27.... per 100 lbs. 6 57		" 11-28 gauge. 1 63		
No. 28.... per 100 lbs. 6 72		Powder.	Each	
No. 30.... per 100 lbs. 7 22		DuPont's Sporting, kegs. \$11 25		
POLISHED SHEET STEEL.		" " 1/2 kegs. 5 90		
Per 100 lbs.		" " 3/4 kegs. 3 10		
Wood's Smooth No. 20.... \$6 57		DuPont's Canisters, 1-lb. 56		
" " No. 22-24.... 6 62		" " 1/2-lb. 32		
" " No. 25-26.... 6 67		" " 1 lb. 22		
" " No. 27.... 6 72		" " Smokeless, drums. 43 50		
" " No. 28.... 6 87		" " kegs. 22 00		
PATENT PLANISHED SHEET IRON.		" " 1/2 kegs. 11 25		
Patent Planished Sheet Iron, 100 lbs., base No. 28.... \$11 55		" " 4-kegs. 5 75		
BAR SOLDER.		" " canisters. 1 00		
Warranted, 50-50.... per lb. 40 50		L. & R. Orange, Extra Sporting kegs. 11 25		
Commercial, 45-55.... " 37 20		L. & R. Orange, Extra Sporting 1/2-kegs. 5 90		
Plumbers'.... " 33 90		L. & R. Orange, Extra Sporting 1/2-kegs. 3 10		
SPELTER.		L. & R. Orange, Extra Sporting 1 lb. canisters. 56		
In slabs.... 7c		L. & R. Orange, Extra Sporting 1/2 lb. canisters. 32		
SHEET ZINC.		L. & R. Orange, Extra Sporting 1/2 lb. canisters. 3		
Cask lots.... 12c		L. & R. Orange, Extra Sporting 1/2-lb. canisters. 22		
Less than cask lots.... 12 1/2 to 12 1/2c		Hercules "E. C." and "Infallible" 50 can drums. 43 50		
COPPER.		Hercules "E. C." kegs. 22 50		
Copper Sheet, base.... 22 1c		Hercules "E. C." 1/2-kegs. 11 25		
ASBESTOS.		Hercules "Infallible," 25 can drums. 22 00		
Board and Paper, upto 1/16" 17c per lb.		Hercules "Infallible," 10 can drums. 9 00		
Thicker. 18c per lb.		Hercules "E. C." 1/4-kegs. 5 75		
Pinch or Wedge Point, per cwt. \$8 50		Hercules "E. C." and "Infallible" canisters. 1 00		
BALANCES, SPRING.		Hercules W. A. .30 Cal. Rifle, canisters. 1 25		
Pelouze.... 20%		Hercules Lightning Rifle, canisters. 1 25		
BARS, CROW.		Hercules Sharpshooter Rifle, canisters. 1 25		
Pinch or Wedge Point, per cwt. \$8 50		Hercules Unique Rifle, canisters 1 50		
BASKETS.		Hercules Bullseye Revolver, canisters. 1 00		
Clothes.				
Small Willow.... per doz. 15 00				
Medium Willow.... " 17 00				
Large Willow.... " 20 00				
GIMLET.				
Standard Double Cut. Doz. \$1 10-\$1 60				
Countersink.... Doz. 1 80				
Reamer.				
No. 1 Common.... " 1 40				
No. 2 Stanley.... " 1 75				
Screw Driver.				
No. 1 Common.... " 1 40				
No. 2 Stanley.... " 1 75				

CRAYONS—See Chalk.	ELBOWS—Conductor Pipe.	Wood Pails.	HANGERS.
CROWBARS.	Galvanized Steel, Tin and Terne, Round Corrugated.	Frazer's, 15lb. \$1.00; 25 lb. \$1.50 each	<i>Barn Door.</i>
Pinch or Wedge Point.....per lb. 80	Size. Doz.	Hub Lightning, 15 lb. 90c; 25 lb. \$1.21 each.	U. S. Rolled Bearing.....12½%
CUTTERS	2-inch.....\$ 3 60	Tin Cans.	Matchless.....12½%
Glass.	3-inch.....4 32	Frazer's	Warehouse Tandem, No. 44...33½%
Woodward.....40%	4-inch.....7 20	1½lb. per doz.....\$1 75	<i>Conductor P.</i>
Meat.	5-inch.....15 00	3 lb. per doz.....3 25	Iwan's Perfection.....50%
Enterprise—Nos. 5 10 12	6-inch.....18 00	GRINDSTONES.	<i>Eave Trough.</i>
Each \$2 50 \$4 25 \$3 75	Subject to 60% discount.	Family.	Imperial.....Net list
Nos. 22 32	EMERY, TURKISH.	Inches.. 7 8 10 12	Wire.....List plus 5%
" 6 50 8 50	Size. 5-lb pkgs. ½ kegs. kegs.	Per doz. 20 50 21 75 26 25 30 50	<i>Garage Door.</i>
Pipe.	Flour.....15c 8c 7½c	Loose.	Right Angle.....50&10%
Saunders', No. 1 2 3	EYES.	Per ton.....Price on application	Sliding Folding.....50%
Each.....\$1 85 2 75 6 75	Bright Wire Screw—See Oodds, B. W.	Mounted.	Receding.....50%
Slaw and Kraut.	Drifting Pick.....60, 10&5%	Ball Bearing.....1 2 3	<i>Parlor Door.</i>
Per doz.	Hooks and Eyes—	Each.....\$4 75 5 00 5 25	Acme.....per set, \$3 75
4-knife Kraut.....\$20 00-55 00	Brass, 1½" No. 60. per gross. \$3 50	GUN WADS.	Ives' Improved.....3 40
3-knife Kraut, 8x27 in. 13 00-18 00	Iron " " 50. " 1 60	(See Ammunition).	Lane's Standard.....3 50
1-knife Slaw.....2 50	FASTENERS, STORM SASH.	GUNS.	Lane's New Model...3 10
2-knife Slaw.....3 00	Shroeder's.....per doz. \$1 50	Iver Johnson Champion Single	Le Roy Noiseless.....40&10%
Washer.....11 00	Sensible....." 3 00	Barrel Shot Guns.....Net Prices	Richards.....25%
DAMPERS, STOVE PIPE.	FILES AND RASPS.	Double Barrel, Hammerless. "	Advance.....40&10%
Ideal	Delta	HAFTS, AWL.	<i>HASPS.</i>
3".....\$1 00	Delta.....30%	Brad.	Hinge, Wrought.....Add 50% to list.
4".....1 05	Swiss.....List plus 25%	Common.....per doz. \$0 35	With Staples—See Staples.
5".....1 15	Utility....." net.	Peg.	<i>HATCHETS.</i>
6".....1 25	Nicholson's—	Patent, plain top. " 80	Crescent.....50%
7".....2 20	American.....50&2½%	Patent, leather top. " 90	Cast Claw.....per doz. \$1 50@1 85
8".....3 75	Arcade.....50&2½%	Sewing.	Cast Shingling...1 50@1 85
10".....6 00	Black Diamond.....40%	Common....." 24	Germantown.....7½%
DIES AND STOCKS.	Eagle.....50&2½%	Patent....." 55	<i>HAY KNIVES.</i>
Discount.....New List	Great Western.....50&2½%	HAMMERS, HANDLED.	See Knives.
DIGGERS.	Kearny & Foot.....50&2½%	Blacksmiths, Hand, No. 0, 26 oz. \$11 11	<i>HAY RACK BRACKETS</i>
Post Hole.	McClellan.....50&2½%	Engineers', No. 1, 26 oz. 11 11	Wenzleman's No. 1 per doz. sets, \$18 00
Eureka.....per doz. \$14 50	Nicholson.....40%	Farriers', No. 6, 7 oz. 7 23	Wenzleman's No. 2 " " 19 20
Iwan's Split Handle (Eureka)	J. Barton Smith.....50&2½%	Heller's., No. 1, 7 oz. 6 65	<i>HINGES.</i>
4-ft. Handle.....per doz. 14 00	X-F Swiss Pattern.....List plus 10%	Nail.	Blind.
7-ft. " " 20 00	Simonds'.....50%	Vanadium, No. 41½, 16 oz., per doz. \$12 00	Clark's Gravity
Iwan's Perfection (Atlas) " 16 00	Disston's.....50&2½%	V. & B., No. 11½, 16 oz. per doz. 10 00	No. 1.....per doz. sets, \$2 25
Iwan's Hercules pattern " 16 15	Heller's.....60&10%	Garden City, No. 101½, 16 oz., per doz. 9 00	No. 3....." " " 5 75
See also Augers—Post Hole.	FORKS.	Tinner's Riveting, No. 1, 8 oz., per doz. 8 00	<i>Gate.</i>
Dividers, Wing.....25%	Barley.	Shoe, Steel, No. 1, 13 oz. per doz. 6 88	Clark's.....1 2 3
DOOR CHECKS—See Checks.	Steel, new list.....New Prices	Tack.	Hgs & Ltch, doz. \$5 50 7 00 9 75
DOORS, SCREEN.	Hay.	Magnetic.	Hinges only " 4 75 5 50 8 00
1-in. 4-panel, painted.....Net Prices	2-tine.....New prices	Per doz. \$5 63	Latches only. 1 90 1 90
1½-in. 4-panel, painted. "	3- "	HAMMERS, HEAVY.	<i>Screen Door.</i>
1½-in. 3-panel, natural pine, " fancy.....	4- "	Heavy Hammers and Sledges.	Cast Iron.....gross \$10 00
DOOR HANGERS—See Hangers.	Header.	Under 5 lbs. 50%	Steel....." 7 00
DRILLS.	3-tine.....New prices	5 lbs. and over.....50&10%	<i>Spring.</i>
Blacksmiths' Twist. (New List)....40%	4- "	Masons'.	Chicago.....Add 12½% to list.
Breast.	Manure.	Single and Double Face.....50%	Columbia Dbl. Acting...40&10&5%
Millers Falls No. 12....Each, \$46 00	4-tine.....New prices	HANDLES.	Gem.....25%
" " 112...." 26 00	FREEZERS—ICE CREAM.	Auger.	Ideal Detachable...per gro. \$1 00
Hand.	White Mountain 1-quart....@	Common Assorted...per doz. \$0 75	Matchless.....40%
Goodell's Automatic.	" " 2 "	Pratt's Adjustable, Nos. 1 & 2, per doz. 6 00	New Idea.....per gro. \$7 20
Nos. 01 03	Arctic.....1 "	Ives' Adjustable...per set, 1 35	Oxford.....20%
Per doz. 12 00 14 40	2 "	Axe.....30%	<i>Wrought Iron.</i>
Goodell's Single Gear, per doz. 15 75	4 "	Chisel.	New Lists.....
Goodell-Pratt No. 4½ per doz.	Arctic.....2 "	Hickory, Tanged, Firmer, Assorted, 55c; Large, 85c per doz.	Light Strap Hinges.....15%
list, less.....35-40%	4 "	Hickory, Socket Firmer, Assorted, 70c; Large size, 80c per doz.	Heavy Strap Hinges.....25&5%
Goodell-Pratt No. 379 per doz.	Wire.	Coal Pick.....40%	Light T Hinges.....15&5%
list, less.....35-40%	Disston's.....25%	Drifting Pick.....40%	Heavy T Hinges.....20&5%
Reciprocating.	GIMLETS.	File, assorted, 30c; Large, 35c per doz.	Extra Heavy T Hinges.....25%
Goodell's.....per doz. 26 00	Discount.....35@40%	Hammer.	<i>Screw Hook and Strap.</i>
DRIVERS, SCREW.	GAUGES.	Adze Eye.....per doz. 40 to \$1 00	6 to 12 in.....per 100 lbs. \$7 75
Standard.....Nets	Cream Pail.	Blacksmiths'...." 45c@1 00	14 to 20 in....." " 7 50
Lock Ferrule....."	Fairmount.....per doz. \$3 75	Machinists'...." 50c@1 00	22 to 36 in....." " 7 25
Champion....."	Marking, Mortise, etc.....	Hay and Manure Fork.....25%	<i>Screw Hook and Eye.</i>
Champion Pattern....."	Wire.	Screw Driver.	4 in.....per doz. pair \$2 60
Clark's Interchangeable....."	Disston's.....25%	Assorted....." 60	4 in....." " 3 50
Edison....."	GIMLETS.	Large....." 90	4 in....." " 5 00
Reed's Lightning....."	Discount.....35@40%	<i>HOES.</i>	
Goodell's Spiral....."	GLUE.		Garden.....Net
Yankee Ratchet....."	Bulk.		Grub.
" Spiral....."	B Amber.....per lb. 35c		Extra.....New prices
EAVES, TROUGH.	A White....." 40c		Hazel.....per doz. New prices
60% off Standard List.	H. S. Amber....." 32c		Ladies' and Boys'.....New prices
ELBOWS—Stove Pipe.	Liquid.		Mortar.....New prices
1-piece Corrugated, Uniform.	Army & Navy.....40%		Planter's Eye.....New prices
Doz.	Le Page's—		Weed.....New prices
5-inch.....\$1 40	List "A".....37½%		<i>HOLLOW WARE—See Ware.</i>
6-inch.....1 50	List "B".....33½%		<i>HOOKS.</i>
7-inch.....1 90	List "C".....25 %		Awning. No. 60.....per gro. 50%
Uniform, Color Adjustable	GREASE, AXLE.		Belt.
Doz.	Wood Boxes.		Brown's.....70&5%
5-inch.....\$1 35	Frazer's.....per gro. \$13 00		Jones'.....65&5%
6-inch.....1 45	Hub Lightning.....7 50		Bench.
7-inch.....1 80	Shovel and Spade.....25%		See Stops, Bench.

PARERS.		TINNERS'.		PUNCHES.		SAWS.	
<i>Apple.</i>		Hollow.....	Net list	<i>Conductors.</i>		<i>Band.</i>	
Goodell's.....	per doz. \$10 80	Solid.....	each, 10c	No. 22.....	per doz. \$3 00	E. C. Atkins & Co. Prices on applic'a	
Turntable.....	" 11 40			Machine.....	per lb. 25	<i>Buck.</i>	
White Mountain....	" 8 40					Disston's.....	New nets
Reading, No. 78....	" 11 40			<i>Saddlers'.</i>		Jackson's.....	New nets
<i>Potato.</i>				Common.....	per doz. 1 50 to 5 00	<i>Butchers'.</i>	
Goodsell's Saratoga, 10 $\frac{1}{2}$ in., dz. 6 50						E. C. Atkins & Co. Prices on applic'n	
Goodsell's Saratoga, 5 in., dz. 5 50						Disston's.....	New nets
<i>PICKS.</i>						<i>Compass.</i>	
Adze Eye Ore.....	22 $\frac{1}{2}$ %					E. C. Atkins & Co. Prices on applic'n	
Drifting and Poll Picks.....	22 $\frac{1}{2}$ %					Common.....	New nets
Plumbs, Railroad.....	22 $\frac{1}{2}$ %					Disston's.....	New nets
Surface.....	22 $\frac{1}{2}$ %					<i>Circular.</i>	
<i>PINCERS.</i>						E. C. Atkins & Co. Prices on applic'n	
Carpenters', cast steel.						Common.....	New nets
Inches... 6 8 10 12						Disston's.....	New nets
Per doz... \$3 75 4 75 6 25 7 00						<i>Cross-Cut.</i>	
Blacksmiths'.....	45%					E. C. Atkins & Co. Prices on applic'n	
Heller's.....	40%					Disston's.....	New nets
<i>PINS.</i>						<i>Dehorning.</i>	
<i>Clothes.</i>						Disston's.....	New nets
Common... per box of 5 gro. \$0 95						<i>Hack.</i>	
<i>Picket</i>						Disston's.....	New nets
Fluted, 15-in..... per doz. \$1 10						Simonds', Box Lots.....	New nets
Fluted, 21-in..... "	1 60					Star.....	New nets
Spiral..... "	1 90					<i>Hand and Rip.</i>	
<i>PIPE.</i>						E. C. Atkins & Co. Prices on applic'n	
<i>Conductor.</i>						Disston's No. 7.....	New nets
Standard Gauge Conductor Pipe, plain or corrugated.						Disston's Nos. 8, D8, 12, 76, 112, D100, and 120.....	New nets
Not Nested.....	45&5% off					Keystone.....	New nets
Nested solid.....	50% off					<i>Keyhole.</i>	
L. C. L. to Dealers:—						Disston's.....	New nets
Terms 60 days; 2% Cash 10 days.						<i>Miter Box.</i>	
Factory shipments generally delivered.						E. C. Atkins & Co. Prices on applic'n	
<i>Slope.</i>	Per 100 Joints					<i>Narrow Band.</i>	
29-Gauge, 3-inch.....	\$15 50					Simonds'.....	New nets
" 4-inch.....	16 50					<i>Panel.</i>	
" 5-inch.....	17 70					E. C. Atkins & Co. Prices on applic'n	
" 6-inch.....	18 75					Disston's No. 7.....	New nets
" 7-inch.....	21 20					<i>Pruning.</i>	
<i>T-Joint, Made-up.</i>						Disston's.....	New nets
6-inch..... per 100 \$31 00						<i>Rift.</i>	
<i>Furnace Pipe.</i>						Simonds'.....	New nets
Double Wall Pipe and Fittings 33 $\frac{1}{2}$ %						<i>Wood.</i>	
Single Wall Pipe, Round Pipe						E. C. Atkins & Co. Prices on applic'n	
Fittings.....	33 $\frac{1}{2}$ %					Common.....	New nets
Galvan'd and Black Iron Pipe, Shoes, etc.....	30%					Clover leaf.....	New nets
<i>PLANES.</i>						<i>SAW BUCKS—See Bucks.</i>	
Stanley Iron Bench..... net						<i>SAW SETS—See Sets.</i>	
<i>PLATES, TIN.</i>						<i>SAW TOOLS—See Tools.</i>	
See Metals in Column 1.						<i>SAW FRAMES.</i>	
<i>PLIERS.</i>						Common, plain..... per doz. \$1 50	
Giant, Button's—Nets						Common painted..... " 2 10	
<i>Cutting.</i>						<i>SCALES.</i>	
Bernard's..... New Prices						Counter.	
Lodi..... New Prices						Pelouze..... 40&10%	
Paragon..... New Prices						<i>SCISSORS.</i>	
<i>Fencing.</i>						Star..... 60%	
Black Bull..... All Nets						<i>SCOOPS.</i>	
Farmers' Choice..... All Nets						Grain.	
Russell's..... All Nets						$\frac{1}{2}$ bu. "Hercules"..... per doz. 3 70	
<i>Flat and Round Nose.</i>						1-bu. "Hercules"..... " 5 00	
Bernard's..... New Prices						<i>SCRAPERS.</i>	
Lodi..... New Prices						Box.	
Paragon..... New Prices						Triangular, No. 6..... per doz. \$6 25	
<i>Gas.—Inches 7 8 10 12 14</i>						Cabinet.	
Per doz. 5 00 5 50 7 00 8 00 10 00						Cast Steel, Nos. 2 $\frac{1}{2}$ x5 3x5 3 $\frac{1}{2}$ x6	
						Per doz. \$1 10 1 25 1 30	
						<i>Road.</i>	
						Cubic ft. 7 5 3	
						With runners, ea. \$7 00 6 50 6 20	
						<i>SCREEN DOOR HINGES.</i>	
						Cast iron..... gross, \$13 00	
						Steel..... " 9 50	
						<i>SCREWS.</i>	
						Bench.	
						Iron, ins. 1 1 $\frac{1}{2}$ 14 1 $\frac{1}{2}$ 1 $\frac{1}{2}$	
						\$9 75 11 50 13 75 21 50	
						Wood, white maple... per doz. 6 00	
						Hand—Wood. 35%	
						Hand Rail. 22 $\frac{1}{2}$ %	
						Jack. 30-5%	
						Lay or Coach—all sizes, gimlet pointed. 40%	
						<i>Saw—Centennial.</i>	
						Nos. 1 2 3 4	
						Per doz. 47c 55c 75c 90c	
						<i>Wood.</i>	
						F. H. Bright. 70-10-10 $\frac{1}{2}$ %	
						R. H. Blued. 65-10-10 $\frac{1}{2}$ %	
						F. H. Jap'd. 62 $\frac{1}{2}$ -10 $\frac{1}{2}$ %	
						F. H. Brass. 42 $\frac{1}{2}$ -10 $\frac{1}{2}$ %	
						R. H. Brass. 40-10-5 $\frac{1}{2}$ %	
						R. H. Nickel Plated. 57 $\frac{1}{2}$ -10 $\frac{1}{2}$ %	
						<i>SCYTHES.</i>	
						Clipper, grass..... per doz. \$13 50	
						Honest Dutchman..... " 13 75	

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 Bernz, Otto, Newark, N. J.

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Wanted—To hear from owner of good hardware store for sale. State cash price, description. D. F. Bush, Minneapolis, Minnesota. 14-1t

For Sale or Rent—A well equipped tin shop doing a good business and lots of work on hand. Will sell on easy terms or will rent. Answer Quick, F. L. Vannatta, Bloomville, Ohio. 11-3t

For Sale—Plumbing, warm air, vapor, hot water, tinning and lightning rod business in eastern Iowa. I can show this deal to be a money maker. J. J. Donohoe, Williamsburg, Iowa. 13-4t

For Sale—Tin and plumbing shop. County seat. Population 2,500. Only tin shop; one other plumber. Sewers just being completed. Business good but must leave on account of health. Small stock. \$1,000 buys the whole works. No trading. C. E. Varns, Pinckneyville, Illinois. 14-3t

For Sale—A good clean stock of hardware and tin shop. Invoice about \$17,000. Population 25,000. Center of Illinois. Good farming country. Reason for selling, on account of health. Address A-70, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

For Sale—Tin shop, complete set tools, including 8 foot cornice brake and some stock. Agency for Campbell Heating. Well established, good heating business. Highest grade heating on market. Also excellent opening for auto radiator repair business. It will pay you to investigate. C. H. Wilder, Melrose Park, Illinois. 14-3t

For Sale—Owing to the death of owner we offer for sale a fine furnace and sheet metal business in a Western seaport town of 130,000 population with acknowledged brightest prospects of any of coast cities. Excellent opportunity. Fine paying business. Will stand close inspection. Address A-73, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

For Sale—Plumbing and sheet metal shop in metropolis of southeastern Kentucky, located junction of Kentucky, Virginia to Tennessee, in one of the best and largest coal fields in the United States. New and fast being developed, and also tributary to fine farming and stock country. City and tributary country with almost unlimited business. City has splendid water works—gets pure and healthy water from beautiful mountain lake. To anyone interested I will be glad to give any further information they may desire. W. L. Salyers, Middlesboro, Kentucky. 13-4t

For Sale—Live plumbing and heating and sheet metal shop in one of the best growing cities in Montana. County seat of 2,500. No outside competition within seventy miles. Stock and tools invoices \$8,200. Spring prospects never looked better. Ill health compels us to sell at a sacrifice. Terms cash. Business well established. Offers splendid opportunity for increased volume for right kind of man. This opening will bear inspection. Unless you have the money and mean business, please do not waste time by writing. Address A-63, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 12-3t

HELP WANTED

Wanted—All around tinner. Men good at furnace work. Steady employment to good men. John Hussie Hardware Company, Omaha, Nebraska. 14-3t

Wanted at Once—We have a first-class job the year around for a good combination man—a plumber and tinner. Tyler and Hallas, Salem, South Dakota. 12-3t

Wanted—Tinner, one who can do furnace work and plumbing. Steady work for right man. Wages \$25.00 to \$35.00 per week. M. E. Southwick, Moville, Iowa. 12-3t

Wanted at Once—A good all around tinner and furnace man, one who is able to do some country plumbing. Steady job and good wages. Treckers and Phillips, Odell, Illinois. 8-ufn

Wanted—A tinner who is willing to help in hardware store. Steady job for a dependable man. Send references and state salary wanted. O'Brien Brothers, Devils Lake, North Dakota. 12-3t

Wanted—First-class tinner and furnace man, one who can do steam and hot water heating. Steady employment to right man. Randolph Hardware Company, Randolph, Wisconsin. 12-3t

Wanted—Tinners for bench work accustomed to work on copper. Must be neat workmen. Steady work and good wages. Address Chas. Skid Manufacturing Company, Janesville, Wisconsin. 13-3t

Wanted—Tinner and sheet metal worker. Steady the year around to right man. Address A-74, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 14-3t

Wanted—A man who can do all kinds of sheet metal work, plumbing, hot air, steam heat and hot water heating. Will pay \$25.00 per week. Neosho Plumbing, Heating and Manufacturing Company, Neosho, Missouri. 13-3t

Wanted at Once—Tinner or plumber, or a good windmill and pump man who is handy at other work. Mostly country work. Could give steady job the year around to right man. State wages wanted. Sam Bergh, Wayland, Iowa. 13-3t

Wanted at Once—A competent all around tinner, plumber and furnace man. Steady job and good wages. Must be sober. State wages wanted in first letter. Nice clean healthy city. Good schools. Address J. H. Ford, Dodgeville, Wisconsin. 14-3t

Wanted at Once—A first-class sheet metal worker, plumber, hot water, steam and warm air heating man. Steady employment the year around. Married man preferred. No boozier. Begin at once. A. L. Spradling, 218 East Main Street, Heppleton, Illinois. 12-3t

Wanted—Sheet metal and furnace man to take charge of shop. Opportunity to get a working interest in the business for the right man. Must be strictly sober and not more than 40 years of age. Will pay up to 65c per hour. Roell Heating & Ventilating Company, Minot, North Dakota. 12-3t

Wanted—All around tinner and plumber; one who can also do hot air, steam and hot water heating. Steady employment the year around. Married man preferred. State full particulars about yourself and wages expected in first letter. Schaefer Hardware Company, Crystal Lake, Illinois. 12-3t

Wanted at Once—One first-class metal worker for bench work. Young man preferred who has some speed and thoroughly understands this work. Also one man who thoroughly understands radiator repair work and can do metal work. Steady for the right men. Brize Metal Works, Twin Falls, Idaho. 12-3t

Wanted—One first-class sheet metal worker who can do inside and outside work, including roofing, gutters, spouting and general repair work. Eight hours per day. 70 cents per hour. If you can do above work and want to come, wire. If job still open we will wire you to come. No transportation furnished. Address Box 194, Charleston, West Virginia. Kanawha County. 12-3t

Wanted—Competent sheet metal workers. Men who are able to get out own patterns and do all kinds of jobbing on work that must be right. If you are this kind of a man reply at once. Union town and a brand new shop with lots of light and the finest of equipment for light and heavy sheet metal work. Married men preferred. Scale is 70c per hour. Address A-71, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

SITUATION WANTED.

Wanted—Situation by tinner-clerk in good country town. Can also do some plumbing. Address Clerk, 719 North Street, Peoria, Illinois. 13-3t

Wanted—Situation by a first-class sheet metal worker and furnace man. Am steady and sober and want a steady job. Address Tinner, 2241a E Street, Granite City, Illinois. 12-3t

Situation Wanted by a first-class tinner and furnace man, also experienced hardware clerk. Steady and reliable. Address A-65, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

Situation wanted by first-class sheet metal worker. Can do cornice work, skylights, ventilating, cupolas, general shop work and furnaces. Can also do drafting and pattern cutting. Address 207 North Pennsylvania Avenue, Mason City, Iowa. 12-3t

Situation Wanted—By a practical hardware man. Have had 15 years' experience with some up-to-date hardware firm. Will consider to buy an interest in one. Please Address replies to A-69, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

Situation Wanted—By a first-class mechanic capable of taking charge of a combination shop doing plumbing, heating and sheet metal work. Nothing but a year around job considered. State salary you are willing to pay. Address replies to A-72, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

Situation wanted by an experienced hardware man. Can do plumbing, heating, electric wiring, install milking machines and do anything that comes in the hardware line. Am married and sober. Can furnish A1 references. Prefer place where work brings advancement. Address A-67, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 12-3t

Situation Wanted—By a first-class tinner and furnace man. Am steady, married and thirty years of age. Have had twelve years' experience. Must be a steady job. Am at present employed but would like a change for good reasons. Wages not less than fifty cents per hour. Kindly address replies to A-68, care of AMERICAN ARTISAN AND HARDWARE RECORD, 620 South Michigan Boulevard, Chicago, Illinois. 13-3t

Wanted—Position as plumber and tinner. Am 36 years old, single and have no bad habits. Can handle truck or auto. 21 years at plumbing and tinning. Can also wipe lead joints. Expert on furnaces and heating. I am not a would-be mechanic. A trial will convince you. State your wages in first letter. I worked at Rock Island Arsenal. If you desire a first-class workman write to Lee Ball, 1613 11th Street, Moline, Illinois. 12-3t

TINNERS' TOOLS

Wanted—An eight foot steel cornice brake. Must be in good condition. Address H. A. Ebert, Alden, Minnesota. 12-3t

Wanted—One pair second hand rollers 30". State price in first letter. E. J. Wakeford, care of Edw. Knoll, Stillman Valley, Illinois. 13-3t

For Sale—One complete set of tinner's tools, including 8 foot steel cornice brake. All in good condition. Address Harry Hatesohl, 1223 Garfield Street, Beatrice, Nebraska. 13-3t

Wanted to Buy—One or two second hand small turning machines P. and G. without stand. Condition of faces not particular. One 20" bar folder. Fremont Furnace and Metal Works, Fremont, Nebraska. 12-3t

For Sale—To those who wish to save time and money, J. W. Conchar's PRICE MAKER AND PROFIT DETERMINER is just the thing you need. This handy volume will be of the greatest value to you in regulating the list and selling prices of any article. The tables in this book are arranged to show the sold cost and the net profit and the percentage that must be added to the actual warehouse or store cost to bring the result desired. 170 pages. Cloth \$2.00, postage prepaid. Address Daniel Stern, 620 South Michigan Boulevard, Chicago, Illinois.